

SAP@Web Installation Guide



Release 4.6C



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To order additional copies of this documentation, use the product number 51009540.

Typographic Conventions

Type Style	Represents
<i>Interface Text</i>	Words or characters that appear on the screen. This includes system messages, field names, screen titles, pushbuttons, menu names, and menu options.
<i>Document Title</i>	Cross-references to other documentation
User Entry	Exact user entry. These are words and characters that you enter exactly as they appear in the documentation.
File Name	File names, batch files, paths or directories, and screen messages
<Variable User Entry>	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.
NAME	Names of elements in the SAP System. These include report names, program names, transaction codes, table names, and ABAP language elements.
KEY	Keys on your keyboard. These include function keys (for example, F2) and the ENTER key.

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax
	Tip

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SAP@Web Installation Guide

Purpose

This documentation describes how to install the SAP Internet Transaction Server (ITS) and the SAP@Web Studio.

Implementation Considerations

If you want to give Internet and intranet users direct access to the R/3 System by enabling them to start SAP Internet applications from a Web browser, you must install the ITS.

If you want to develop your own Internet applications based on the ITS infrastructure, you should also install the SAP@Web Studio.

SAP recommends that you install these components in the above sequence and then perform the configuration tasks for each installation.

Integration

You must install the required Web server and Web browser software.

Features

You can start the initial installation of the ITS and the SAP@Web Studio either from the installation CD or from a Web download package.

The ITS setup is an InstallShield program that:

- Self-extracts its content
- Checks that it is currently running under a Windows NT account with administration authorizations, and that the installation is taking place on a Windows NT 4.0 server.

If either of these conditions is not satisfied, the ITS setup exits immediately.

- Takes you through a series of dialog steps, and checks your input.

For example, the program checks that there is enough disk space to proceed with the installation, and that the message server you have specified is correct.

Once you have installed the ITS, Internet and intranet users can access the R/3 System by starting Internet applications from a Web browser. SAP Internet applications are Internet-enabled transactions, function modules, and reports.

SAP delivers a standard package of applications known as Internet Application Components (IACs) with each ITS release, but you can use the SAP@Web Studio to develop your own and source-control them in R/3.

Constraints

- The ITS can only be installed on Windows NT 4.0 servers.
- The SAP@Web Studio can be installed on Windows NT 4.0 servers and Windows NT workstations.
- Your R/3 System must be Release 3.0D (or later).

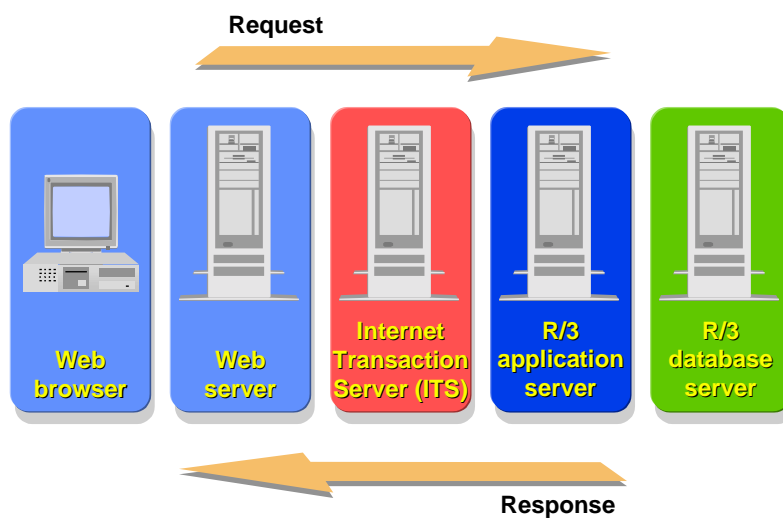
If you plan to install the SAP GUI for HTML, you must have Release 4.0A (or later).

ITS Architecture

The SAP Internet Transaction Server (ITS) links the R/3 System to the Internet.

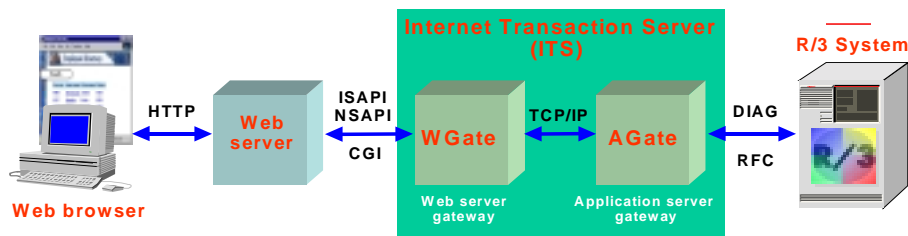
The ITS is a gateway between one or more Web servers and one or more R/3 application servers. Typically, the Web server is an HTTP server, but other protocols such as FTP or Gopher may also be supported.

The following graphic shows how the ITS extends the three-tier client/server architecture of the R/3 System to the Internet:



The ITS manages all requests and responses between a Web browser client and an R/3 server. The ITS consists of 2 main components – WGate and AGate.

WGate and AGate



- **WGate**

WGate is the Web server gateway that links the ITS to the Web server.

WGate receives requests from the Web browser via the Web server, and forwards them to AGate via a TCP/IP connection.

WGate always resides on the same machine as the Web server.

WGate is a Web server extension that shields AGate from differences in the various Web server APIs used. WGate supports the following Web servers:

- Microsoft Information Server API (ISAPI)
- Netscape Network Server API (NSAPI)

All other Web server APIs are supported via the Common Gateway Interface (CGI)

WGate connects a 'stateless' Web server, which communicates with Web browsers via single request/response cycles, to a 'stateful' R/3 System where business transactions depend on internal status.

When an Internet or intranet user starts an application from a Web browser and triggers an R/3 transaction, function module, or report via the ITS, there must be a server process running throughout the user session (possibly longer) in order to maintain the user's context in R/3. Although communication between the Web browser and the Web server is based on single request/response cycles, WGate must be able to transfer the browser request to a permanently running server process. This is the role of the AGate component.

- **AGate**

AGate is the application server gateway that links the ITS to the R/3 application server.

AGate is also the core processing component of the ITS.

AGate receives Web browser requests from WGate and communicates with the R/3 application server via the DIAG protocol or the RFC protocol.

When a connection has been established, AGate processes the requests, and sends all relevant details (including logon information) to the R/3 System, which either starts the first dialog step of a new transaction or submits further data for the next dialog step of a transaction already started.

When a dialog step has finished, AGate retrieves the results from R/3, processes them, and sends the response back to WGate.

AGate is effectively responsible for managing all sessions, services, and users, and for generating the HTML documents that are sent back to the Web browser client.

You can install WGate and AGate on separate host machines.

There can be more than one AGate, but all must reside on the same machine. AGate can handle concurrent requests for multiple sessions.

Separation of WGate and AGate

Linking the R/3 System to the Internet via the ITS increases security problems. To minimize unwanted access by unauthorized users, it makes sense to separate R/3-related information (particularly passwords and connection information) from the Web server, and restrict generally available functionality to a bare minimum:

The security risks posed by WGate and AGate vary:

- WGate is small and functionally simple. Its sole function is to pass requests back and forth between the Web server and the ITS, so there are few possible targets of attack.
- AGate, however, handles most of the processing required to run an R/3 transaction as an IAC over the Internet, and is connected directly to R/3, so security is critical.

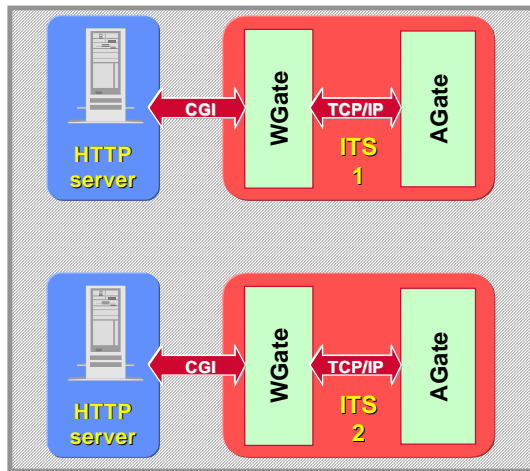
You can install both WGate and AGate on the same machine, but it is better to install them on separate hosts, especially if you are setting up production systems. You can then place a firewall between the two components and increase the level of protection.

For further information, see [ITS Security \[Page 10\]](#).

ITS Virtual Instances

The ITS supports virtual instances. When you have run the ITS setup program once to create one physical installation, you can create any number of additional virtual ITS instances by running it repeatedly. Each ITS instance should correspond to precisely one R/3 System, so that each provides access to IACs for a specific R/3 release.

When you create an ITS instance, you specify a Web server, which must support multiple Web server instances. Each ITS instance should have its own dedicated Web server instance, as shown in the following graphic:



ITS Security

Enabling Internet users to communicate directly with the R/3 System via the Internet Transaction Server (ITS) has obvious advantages for business users, but it also raises a number of security issues.

Protecting ITS Files

To safeguard ITS files and passwords against unauthorized users, SAP recommends that you restrict access to this information as much as possible. Dialogs in the ITS setup program show you how to achieve this, using Windows NT Security.

Restricting Access to R/3

To run SAP Internet applications - known to the ITS as services - from a Web browser, users need an R/3 user account. To set this up, you can do any of the following:

- Create a global R/3 user account for all services.
In this case, users can start any service.
- Create a specific R/3 user account for each individual service.
In this case, users can only start those services for which they have a user account.
- Create no static R/3 user account.
In this case, users are prompted for a user name and password in a logon procedure each time a service is started.

The ITS handles security very strictly. Static R/3 user names and passwords are stored in the service files, and all passwords are encrypted. If you use the secure installation option, all ITS service files are also protected by Windows NT Security. Only the Windows NT administrator group *ITSadm* and the Windows NT user group *ITSusers* can access these files.



Using one global R/3 user account with extensive authorizations can be a security risk. Although the ITS setup program uses one global user account, SAP strongly recommends that you apply security settings for each service. Service-specific user accounts must be set up by your R/3 system administrator.

Further Information

For detailed information about security issues, see the *R/3 Security Guide* in SAPNet under the alias `securityguide`.

You can find information about ITS security in *Volume II: R/3 Security Services in Detail, Chapter 2-10: Special Topics* under *R/3 Internet Application Components (IAC)*.

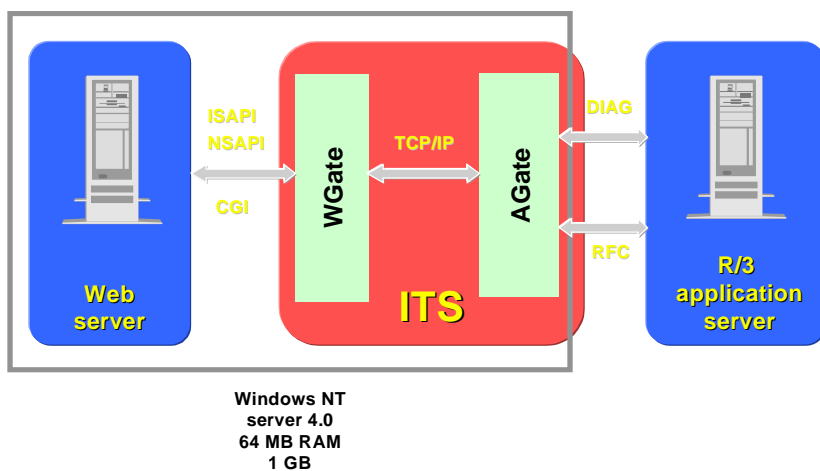
ITS Installation Options

You have two options when installing the Internet Transaction Server (ITS):

- Single-host installation
- Dual-host installation

Single Host Installation

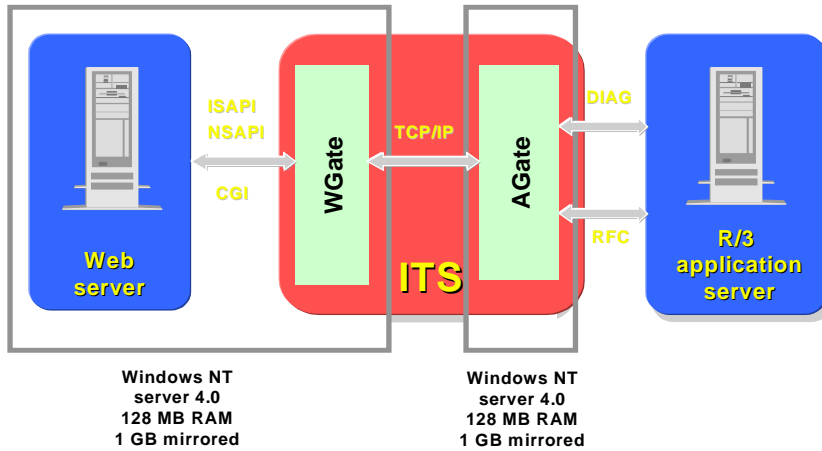
A single host installation places the Web server, WGate, and AGate on the **same** host machine, as shown in the following graphic:



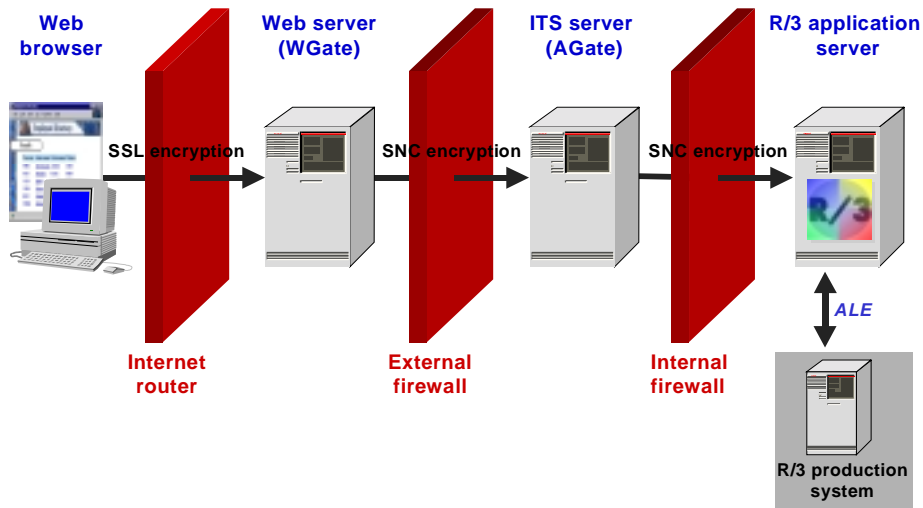
This installation type is appropriate for development and test systems where security is less critical. In this case, a firewall between the Web server and the Internet is probably sufficient.

Dual Host Installation

A dual host installation places WGate and AGate on **separate** host machines - WGate on the Web server host, and AGate on another host, as shown in the following graphic:



This installation type is appropriate for production systems where security is vital. In this case, you could install a second firewall between WGate and AGate and, for even greater security, a third firewall between AGate and R/3, as shown in the following graphic:



IAC Packages

SAP delivers a standard package of Internet Application Components (IACs) with each release of the Internet Transaction Server (ITS).

Internet Application Components (IACs)

IACs are complete business solutions for linking the R/3 System to the Internet. They allow both Internet and intranet users to start R/3 transactions, function modules, and reports directly from a Web browser.

IAC Packages

The ITS setup program allows you to select the IAC packages you want as part of the standard installation procedure. The packages contain all the files you need to run IACs for a specific R/3 release. These files include:

- Service files
- HTML templates
- Language resource files
- Multipurpose Internet Mail Extension (MIME) files

How the ITS Setup Program Handles IAC Packages

The way in which the ITS setup program handles IAC packages depends on the version of the ITS you are installing:

- Prior to ITS 2.1, all the ITS files needed to run IACs for a specific R/3 release came with the ITS setup program.

If you wanted to run a new version of the ITS prior to ITS 2.1, but with an older release of the R/3 System, you had to install an older version of the ITS with the relevant files for your R/3 release, and then upgrade to the newer version of the ITS. When upgrading, you had to be careful not to overwrite the already installed files.

- Since ITS 2.1, all the ITS files needed to run IACs for a specific R/3 release are shipped separately from the ITS setup program in IAC packages.

The ITS setup program includes a dialog step that allows you to select the IAC packages you want to install with a particular ITS instance. You can select more than one package from two sources:

- Packages included with the ITS setup program

Since the ITS is always shipped together with a particular R/3 release, the ITS setup program always contains the IAC package for that release. This simplifies the installation.

Sometimes, the ITS setup program contains multiple packages. For example, ITS 2.1 runs with R/3 Releases 3.1I and 4.0B, and therefore contains packages for both releases.

The ITS setup program may contain multiple packages for the same R/3 release. These could be application-specific packages, or language-specific packages.

- Packages located in a file system or other network location

The packages dialog of the ITS setup program has a button that allows you to browse for additional packages. This is useful if you want to store several packages on a central file server and allow users to install these packages over the network.

If you get a package from a location other than the ITS installation CD, you can copy it to the ITS installation directory (see below) and start the ITS setup program afterwards. During setup, you simply select that package as the one you want.

The IAC packages you select for installation are copied to the ITS installation directory under:

```
C:\Program Files\SAP\ITS\2.0\install\packages
```

You can use these packages to configure additional ITS instances, either by using the command line utilities or by running the ITS setup program again.

How Installed IAC Packages Interact

Although the ITS setup program always contains an IAC package for a specific R/3 release, you can choose to install several packages at the same time.

All the packages you select are installed together for a particular ITS instance. This means that if you choose packages that contain different versions of the same IAC, one version overwrites the other.



The standard IAC packages for R/3 Releases 3.1I and 4.0B both contain the IAC WW20. However, since the order of installation is random, you cannot know which version actually gets to the file system.

To avoid this problem when you run the ITS setup program, you can use the *Check release consistency* feature in the dialog box for selecting IAC packages. If you do this, the ITS setup program checks that your packages are either all for the same R/3 release, or that they are release-independent.

IAC Package Naming Conventions

The file names of IAC packages generally observe the following naming conventions:

```
<release>_<application>.car
```

You can tell the R/3 release and application from the package file name:



`46b_reta.car` is a package of Retail IACs for Release 4.6B.

`46b_all.car` is a standard cross-application IAC package for Release 4.6B.

IAC package file names are not case-sensitive. However, if a file name does not conform to the naming conventions, it is assumed to be incompatible with other releases (that is, you cannot install it with other packages that are release-specific).

Standard IAC Packages for Installation

The ITS setup program offers the following standard IAC packages for installation:

IAC Package	Description
<code><release>_all.car</code>	Standard cross-application IAC package for the current release.
<code>its_adm.car</code>	ITS Administration package. You need this package if you are installing an administration instance.
<code>webgui.car</code>	SAP GUI for HTML package. You need this package if you are installing the SAP GUI for HTML.

ITS Installation

Purpose

This process describes the main steps for installing the Internet Transaction Server (ITS).



ITS installation tools must be used in accordance with the instructions given, and for the purposes described, in this documentation. Improper use can damage existing files and systems.

Prerequisites

You should read the [overview \[5\]](#), as well as the sections concerned with [architecture \[Page 6\]](#), [security \[Page 10\]](#), [installation options \[Page 11\]](#), and [IAC packages \[Page 13\]](#), especially if you are installing the ITS for the first time.



Before you proceed with the installation, you should also read the following notes in the Customer Service System:

0105055 ITS, R/3 and Web Server Supported Releases

0113914 SAP Internet Transaction Server Release 2.2 News

0180288 SAP Internet Transaction Server Release 4.6A

These notes contain the latest installation and upgrade information.

Process Flow

When installing the ITS, you need to take the following main steps:

1. Check the [installation requirements \[Page 17\]](#).
2. If you are upgrading from an earlier release, read the [upgrade guidelines \[Page 20\]](#).
3. Perform the [preparatory steps \[Page 22\]](#).
This includes setting up the ITS administrator account and defining the ITS user group.
4. Perform a [single host installation \[Page 25\]](#) or a [dual host installation \[Page 47\]](#), depending on your needs.
5. [Check the installation \[Page 85\]](#).
6. If necessary, perform [troubleshooting \[Page 90\]](#) tasks.

ITS Installation Requirements

Purpose

This process describes the hardware and software requirements you need to satisfy before installing the Internet Transaction Server (ITS).

Process Flow

1. Check the hardware requirements specified below.
2. Check the software requirements specified below.
3. Check that you have all the other information you need to perform the installation, as specified in the requirement checklists below.

Hardware Requirements

The tables below specify the hardware you need to run the ITS, depending on whether you are performing a single host installation or a dual host installation.

Please remember that memory and disk space requirements can vary, depending on:

- The number of users concurrently accessing the system
- The number of ITS files stored on the host file system

Hardware Requirements for Single Host Installation

Component	Requirement
Hardware	Intel Pentium, PentiumPro, or Pentium II architecture
Backup (optional)	Either over network or tape drive (DAT 4mm or DLT; hardware compression recommended)
CD-ROM drive	ISO 9660 compatible
Hard disk	1 GB
Memory (RAM)	64 MB

Hardware Requirements for Dual Host Installation

Component	Requirement
Hardware	Intel Pentium, PentiumPro, or Pentium II architecture
Backup (optional)	Either over network or tape drive (DAT 4mm or DLT; hardware compression recommended)
CD-ROM drive	ISO 9660 compatible
Hard disk	2 x 1 GB mirrored
Memory (RAM)	2 x 128 MB

The number of processors required depends on the number of concurrent requests made to the R/3 System. In a production environment, a moderate load requires two processors, but a high load (more than 40 hits per second) requires four processors. For further information, consult your hardware vendor.

Software Requirements

For information about software requirements (including supported platforms, Web servers, and Web browsers), see *SAP System Requirements for Networks, Frontends, Communication Interfaces* in SAPNet under the alias `ssr`.

You can find ITS software requirements in the section *Internet Interfaces*.

Requirement Checklists

The following tables specify all the information you need to install the ITS. Make sure that you have this information available before running the ITS setup program.

AGate Configuration Parameters

Installation directory (used for AGate, WGate)
Homepage (URL displayed when leaving a service)

R/3 Parameters (Always Required)

R/3 System name
Client
User (global user for all services)
Password matching user and client

R/3 Parameters (Load Balancing or Single Application Server)

Option	Load Balancing	Single Application Server
R/3 message server name		Not applicable
Port number for R/3 message server		Not applicable
Login group used by ITS		Not applicable
R/3 application server name	Not applicable	
R/3 System number	Not applicable	
SAProuter string		

Windows NT System Parameters

Options	Use NT Security	Set up Security Later
Name of NT user <i>ITSadm</i>		Not applicable
Password of NT user <i>ITSadm</i>		Not applicable
Name of NT group <i>ITSusers</i>		Not applicable

WGate Installation

Options	WGate Installation on Separate Host	Single Host Installation
Installation directory (used for AGate, WGate)		
Name or IP address of AGate host		Not applicable
Number of ports (<code>sapavw00_<virtual ITS></code> and <code>sapavwmm_<virtual ITS></code>) on AGate host		Not applicable

Upgrading From Previous ITS Releases

Purpose

This process describes what you need to do when upgrading from previous releases of the Internet Transaction Server (ITS).

Process Flow

The default ITS setup program installs new versions of the files required to run IACs in the directories specified in the following tables:

ITS File	Directory
Services	<code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\services</code>
HTML templates	<p><code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates</code></p> <ul style="list-style-type: none"> The <code>templates</code> directory contains a subdirectory for each service under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service></code> Each service subdirectory may also contain subdirectories for each theme under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service>\<theme></code> <p>Themes are service instances that differ only in look and feel.</p>
Language resources	<p><code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates</code></p> <ul style="list-style-type: none"> The <code>templates</code> directory contains a subdirectory for each service under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service></code> Each service subdirectory may also contain subdirectories for each theme under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service>\<theme></code> <p>Themes are service instances that differ only in look and feel.</p>
MIME files	<p><code>C:\Inetpub\wwwroot-<virtual ITS>\SAP\ITS\mimes\<service></code></p> <ul style="list-style-type: none"> The <code>templates</code> directory contains a subdirectory for each service under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service></code> Each service subdirectory may also contain subdirectories for each theme under: <code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\templates\<service>\<theme></code> <p>Themes are service instances that differ only in look and feel.</p>

If you are using R/3 Release 3.1G or earlier, you should select the option **not** to install the ITS files when you run the ITS setup program. The new versions of the ITS files require R/3 Release 3.1H or later.

If you are using R/3 Release 3.1H or later, do the following before installing the ITS files:

1. Make a backup of your existing ITS files
2. Make sure that none of your modified ITS files reside in theme 99
3. Read the following notes in the Customer Service System:
 - 0105055 *ITS, R/3 and Web Server Supported Releases*
 - 0113914 *SAP Internet Transaction Server Release 2.2 News*
 - 0180288 *SAP Internet Transaction Server Release 4.6A*

These notes contain the latest installation and upgrade information.

Installation Preparation

Purpose

This process describes the basic steps needed to prepare for installation of the Internet Transaction Server (ITS).

Prerequisites

You have read the [installation requirements \[Page 17\]](#). If you are upgrading from an earlier release, you should also have read the [upgrade guidelines \[Page 20\]](#).

Process Flow

Before installing the ITS, you should take the following steps:

1. Make sure that the Windows NT 4.0 server and the Web server software have been installed properly on the Web server host.
2. For security reasons, use the Windows NT File System (NTFS) to store ITS files.
NTFS fully supports Windows NT security and long file names.
To check that you are using NTFS:
 - a. Select the hard drive icon in the Windows NT Explorer.
 - b. Click the right mouse button.
 - c. Choose *Properties*.
 - d. Choose the *General* tab.
 - e. Check that the specified file system is NTFS.
3. [Create the ITS administrator account \[Page 23\]](#).
4. [Create the ITS user group \[Page 24\]](#).
5. Make sure that the `TEMP` directory is empty.

Result

You are ready to install the ITS.

Perform a [single host installation \[Page 25\]](#) or a [dual host installation \[Page 47\]](#).

Creating the ITS Administrator Account

Prerequisites

You have read the [installation requirements \[Page 17\]](#).

If you are upgrading from an earlier release, you should also have read the [upgrade guidelines \[Page 20\]](#).

Procedure

1. Log on to the Windows NT system.
2. On the Windows NT 4.0 desktop, choose *Start* → *Programs* → *Administrative Tools (Common)* → *User Manager for Domains*.
3. Choose *User* → *Select Domain*.
4. Enter a Windows NT domain name for the *ITSadm* account and choose *OK*.
5. Choose *User* → *New User*.
6. Enter the following values:

Username: **ITSadm**
Full Name: **SAP Internet Transaction Server Administrator**
Description: **<your description>**
Password: **<your password>**
Confirm Password: **<your password>**



This documentation uses the ITS administrator account *ITSadm*, but you are free to choose any name you like.

7. Choose *Groups*.
8. Add the new user to the group *Domain Administrators* and choose *OK*.
9. Choose *Profile*.
SAP recommends you to enter the following home directory in the *Local Path* field
c:\winnt\Profiles\ITSadm
10. Choose *OK*.
11. Choose *Add* to create the *ITSadm* account.
12. Choose *Close* to close the *New User* window.
13. Choose *User* → *Exit* to leave the *User Manager*.

Result

The ITS administrator account *ITSadm* is created. You can now [create the ITS user group \[Page 24\]](#).

Creating the ITS User Group

Prerequisites

You have [created the ITS administrator account \[Page 23\]](#).

Procedure

1. Log on to the Windows NT system with the ITS administrator account *ITSadm*.
2. On the Windows NT 4.0 desktop, choose *Start* → *Programs* → *Administrative Tools (Common)* → *User Manager for Domains*.
3. Choose *User* → *Select Domain*.
4. Enter a Windows NT domain name for the *ITSadm* account and choose *OK*.
5. Choose *User* → *New Global Group* or *New Local Group*.
6. Enter the following values:

Group Name: **ITSusers**
Description: <your description>



This documentation uses the ITS user group name *ITSusers*, but you are free to choose any name you like.

7. Choose *Add*.
You see a list of names in the Add Users and Groups dialog box.
8. Select group member(s):
9. Choose *Add*.
The selected user(s) are added.
You can always add other users to the group later.
10. Choose *OK*.
11. Choose *OK* to return.
12. Choose *User* → *Exit* to leave the *User Manager*.

Result

The ITS user group *ITSusers* is created. You can now install the ITS by performing either a [single host installation \[Page 25\]](#) or a [dual host installation \[Page 47\]](#).

Single Host Installation

Purpose

This process describes how to install the Internet Transaction Server (ITS) on a single host machine.

If you perform a single host installation, the WGate and the AGate are installed on the Web host.

Prerequisites

You have performed all the [preparatory steps \[Page 22\]](#).

Before starting the installation, make sure that all other applications are closed.

Process Flow

Proceed as described in [Installing the ITS on a Single Host \[Page 26\]](#).

Installing the ITS on a Single Host

Prerequisites

You have performed all the [preparatory steps \[Page 22\]](#).

Procedure

To install the ITS on a single host machine:

1. Log on to the Windows NT 4.0 server with the ITS administrator account *ITSadm*.
2. Insert the presentation CD-ROM.
3. On the Windows NT 4.0 desktop, choose *Start* → *Run*.
4. Choose *Browse* and select the directory `\its\nt\i386` on the CD-ROM drive.
5. Double-click `setupits.exe` and choose *OK*.

You see the *Welcome* screen.

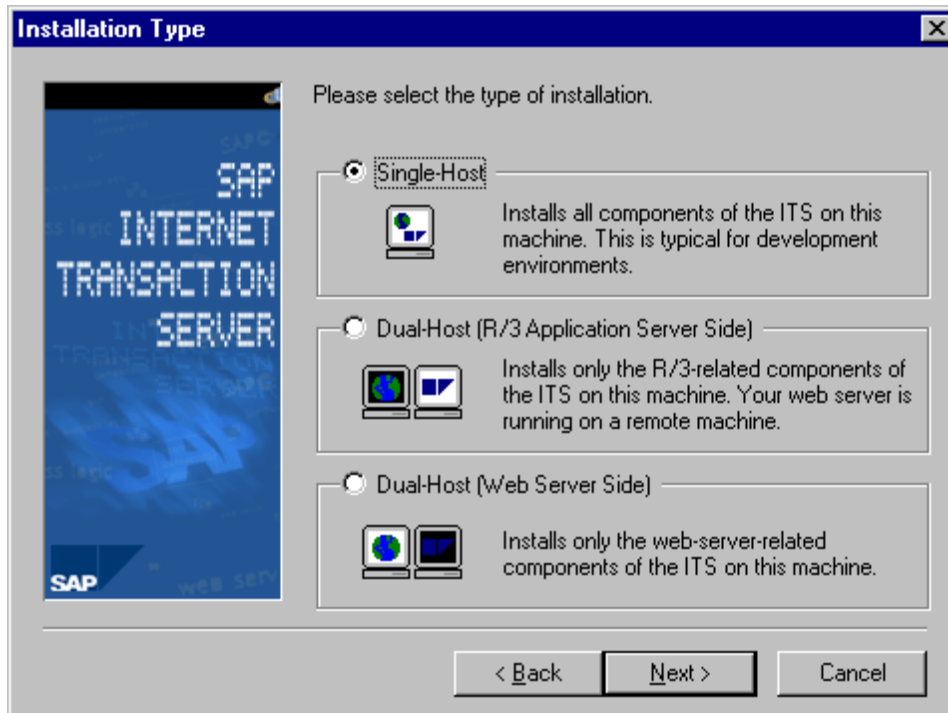
ITS Setup Program Welcome



6. Choose *Next*.

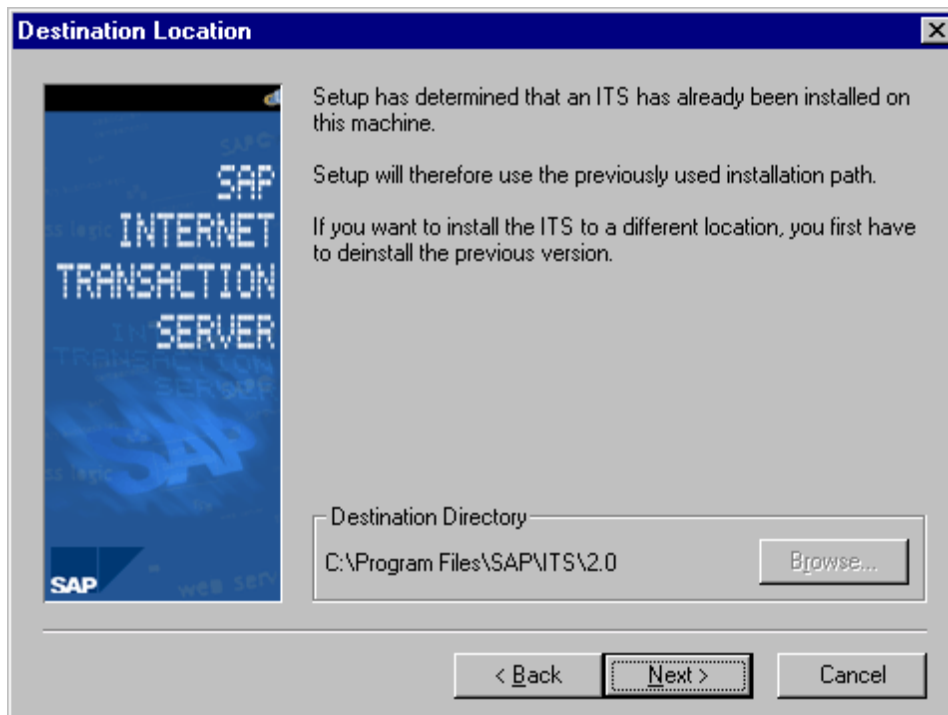
You see the *Installation Type* screen.

Select Installation Type



7. Select *Single-Host* and choose *Next*.
You see the *Destination Location* screen.

Select Destination Location

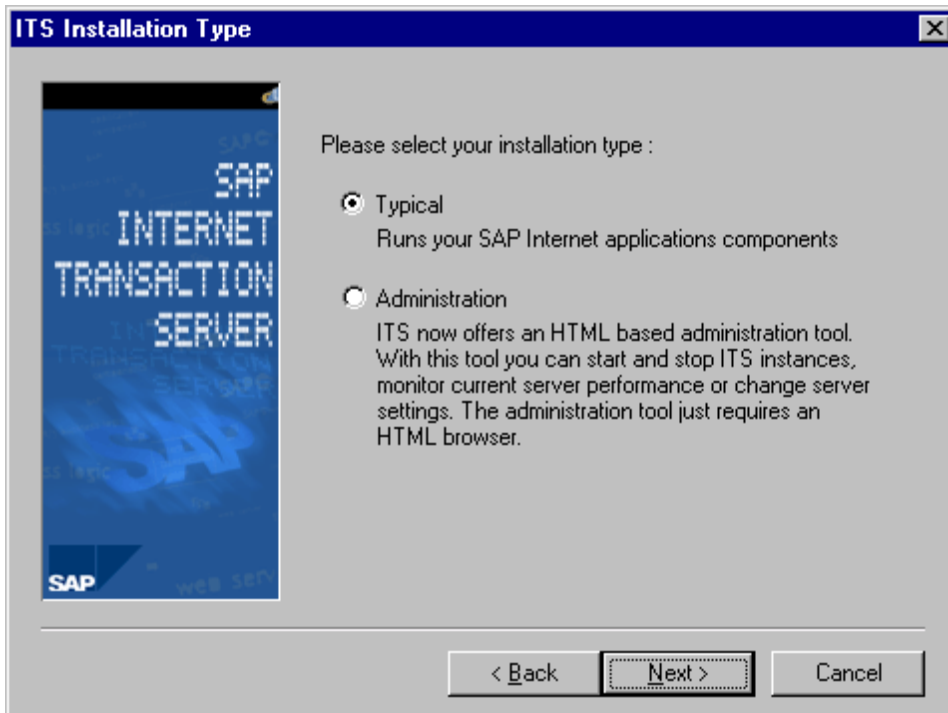


8. Choose *Next* to accept the default destination directory, or choose *Browse* to select a different destination.

If there is already an ITS instance installed on this machine, the previous installation directory is used. In this case, the *Browse* option is not activated, and you cannot change the destination.

When you choose *Next*, you see the *ITS Installation Type* screen.

Select ITS Installation Type



9. Select an ITS installation type and choose *Next*.



If you select *Administration*, the ITS setup program installs an ITS instance that runs ITS Administration. Like any other ITS instance, the administration instance must run under its own dedicated ITS server.

If you already have ITS 1.1 on this host, do not install a separate administration instance, because it will deinstall your current ITS instance. If you need to run ITS Administration, you should:

- i. Install an ITS of type *Typical*.
- ii. Install another ITS of type *Administration* to run ITS Administration.

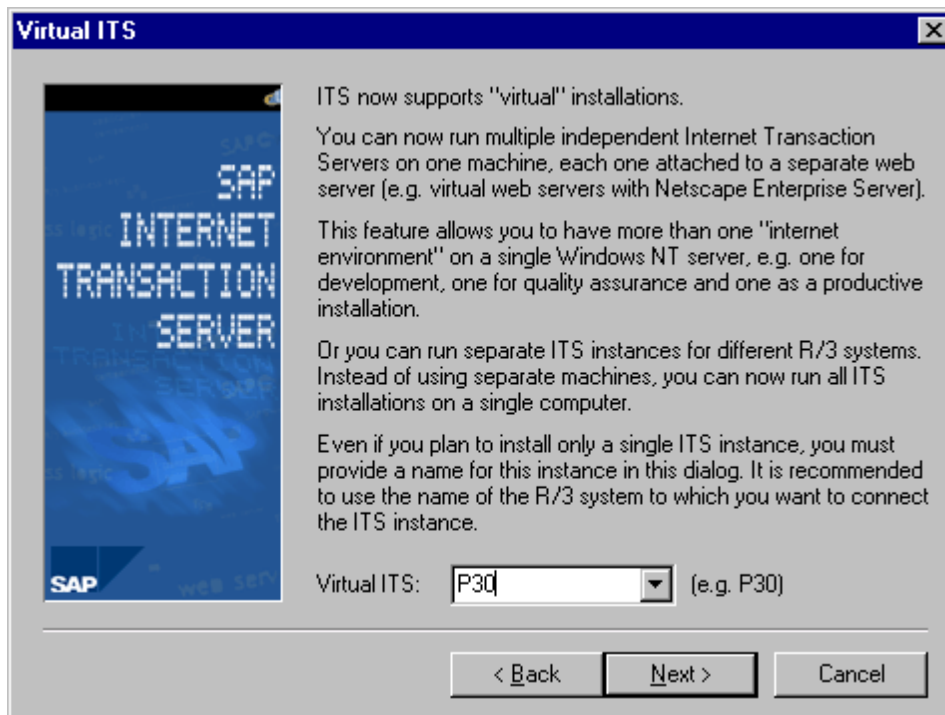
The ITS setup program informs you of this in a special dialog box.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

- In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.
- In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

When you choose *Next*, the ITS setup program prompts you for an ITS instance name. If you chose *Administration* as the installation type, the name *ADM* is proposed.

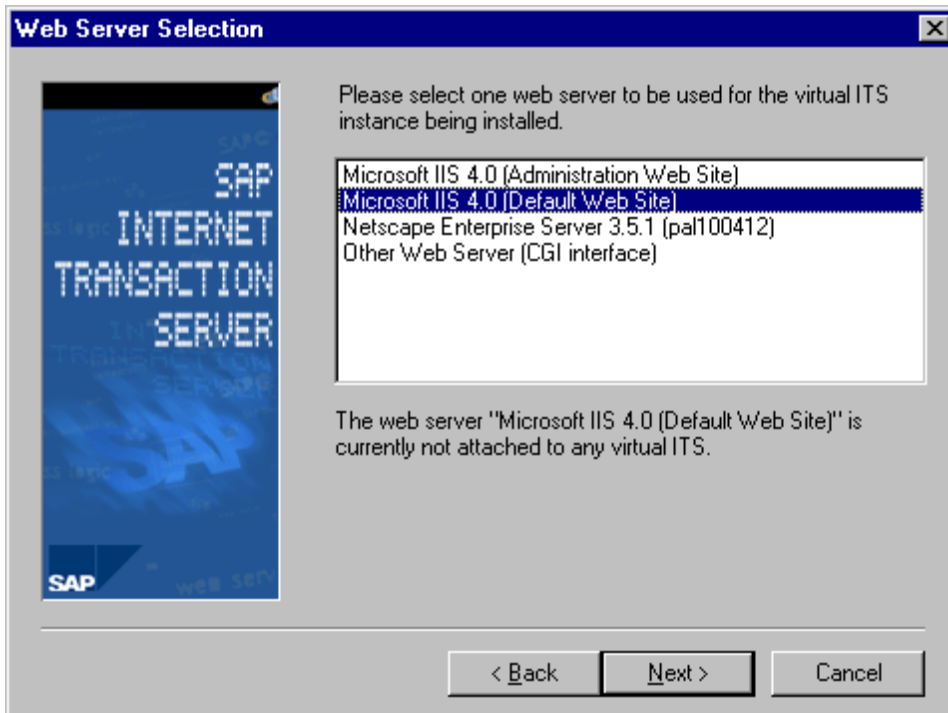
Specify Virtual ITS



10. Enter a virtual ITS instance name and choose *Next*.

SAP recommends that you use the R/3 System name as the instance name. If there are virtual ITS instances already installed on this machine, you can display their names in the dropdown list box.

Select a Web Server



11. Select a Web server and choose *Next*.

The ITS setup program states whether the server you select is already attached to a virtual ITS instance. You can only attach a Web server to one virtual ITS instance.

If you choose *Other Web Server (CGI interface)*, the ITS setup program prompts you for the *Documents* and *CGI Directories*. Otherwise, you go directly to the next step.

Specify the Web Server URL

Web Server URL

Please specify the URL to be used when accessing your web server:

HTTP Access (Unsecure)

Hostname and Domain	Port
http:// pal100412.sap-ag.de	: 80
e.g. www.sap.com	80

HTTPS Access (Secure) Automatic

Hostname and Domain	Port
https:// pal100412.sap-ag.de	: 443
e.g. www.sap.com	443

< Back Next > Cancel

12. Enter the full URL address for accessing the Web server and choose *Next*.

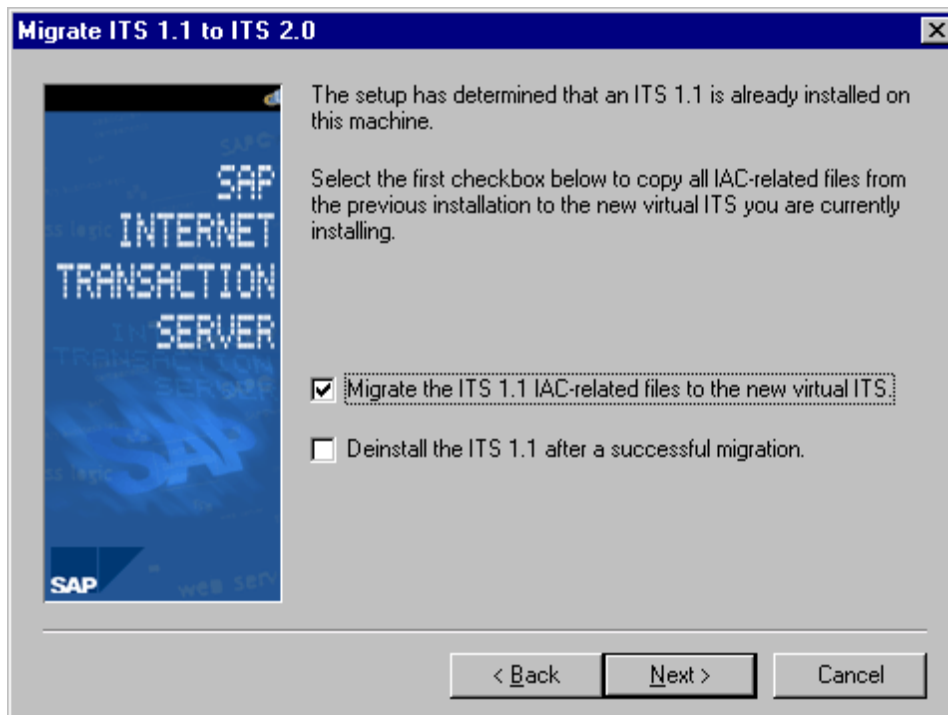
You don't need to enter the *HTTPS Access (Secure)* information, because the ITS setup program echoes this for you automatically. However, if you want to enter a different port (443 is the default), deselect *Automatic* to make the fields accept input.

When you choose *Next*, the system tells you if an older version of the ITS already exists on this host.

Your next few steps depend on whether you have an older ITS installed, or whether you chose *Administration* as the installation type:

- If you have ITS 1.1:
Continue with the *Migrate ITS 1.1 Files* step.
- If you have any other ITS, or no ITS at all:
The ITS setup program omits the upgrading and installing dialogs, so you can skip to *Specify Maximum Number of AGate Processes*.
- If you chose *Administration* as the installation type:
The ITS setup program omits the upgrading and installing dialogs, as well as the dialog for specifying the maximum number of AGate processes, so you can skip to *Select Configuration Type*.

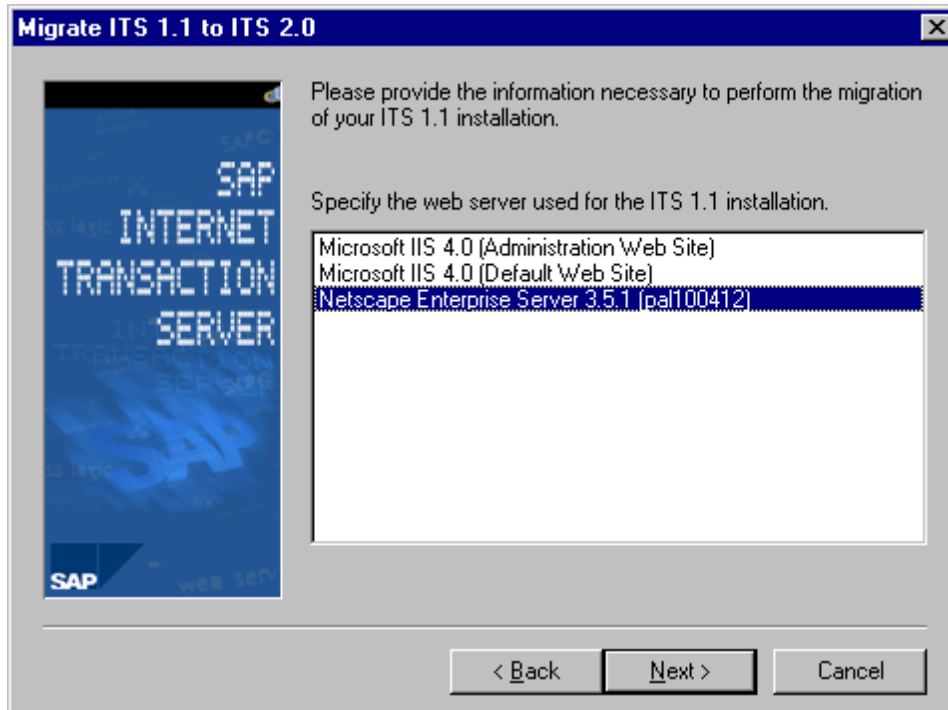
Migrate ITS 1.1 Files



13. Specify how you want to handle the old ITS installation and choose *Next*.
 - To keep the existing files for the new ITS installation, select *Migrate the ITS 1.1 IAC related files to the new virtual ITS*
 - To delete the old ITS installation, select *Deinstall the ITS 1.1 after a successful migration*

Specify Migration Information

To migrate the Web server part (WGate) of an ITS 1.1 installation, you must specify the name of the Web server used.

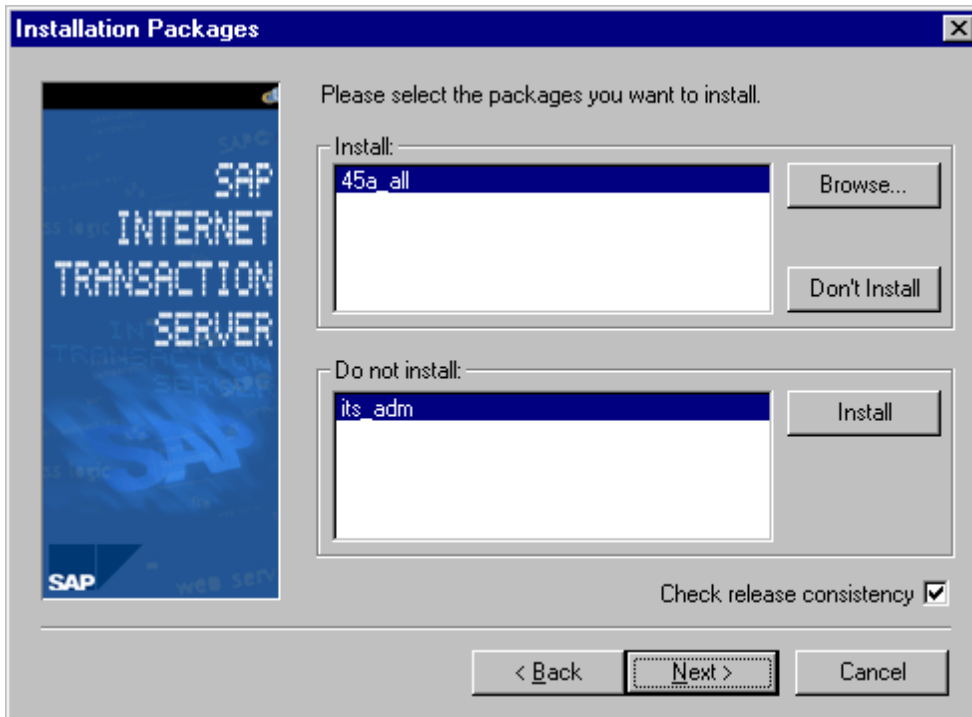


14. Select the desired Web server and choose *Next*.

Select Installation Packages

The ITS setup program asks you to choose the [IAC package\(s\) \[Page 13\]](#) you want to install.

- If you have ITS 2.0 or later, do **not** select any packages.
If the dialog below contains package names in the *Install* box, make sure that you select each one and choose *Don't Install*. Then, choose *Next*.
- If you have no ITS at all (that is, you are installing the ITS for the first time), continue with the steps below.



- Select the package you want to install and choose *Install*.

The *Install* box contains the standard package for the current release in the format `<release>_a11`. The screen above contains the standard package for Release 4.5A.

You can install more than one standard package. If you do this, make sure that *Check release consistency* is selected.

- If you do not want to install the standard package, choose *Don't install*.
- If you are installing an administration instance, select the administration package `its_adm` from the *Do not install* box and choose *Install*.
- If you are installing the SAP GUI for HTML, select the SAP GUI for HTML package `webgui` from the *Do not install* box and choose *Install*. (This is not shown in the above screen.)
- If you are installing a different language version, or an application-specific package, you may need to choose *Browse* to locate the correct package.



You cannot add packages to an existing ITS later by running the ITS setup program again, so make sure that you choose all the packages you need.

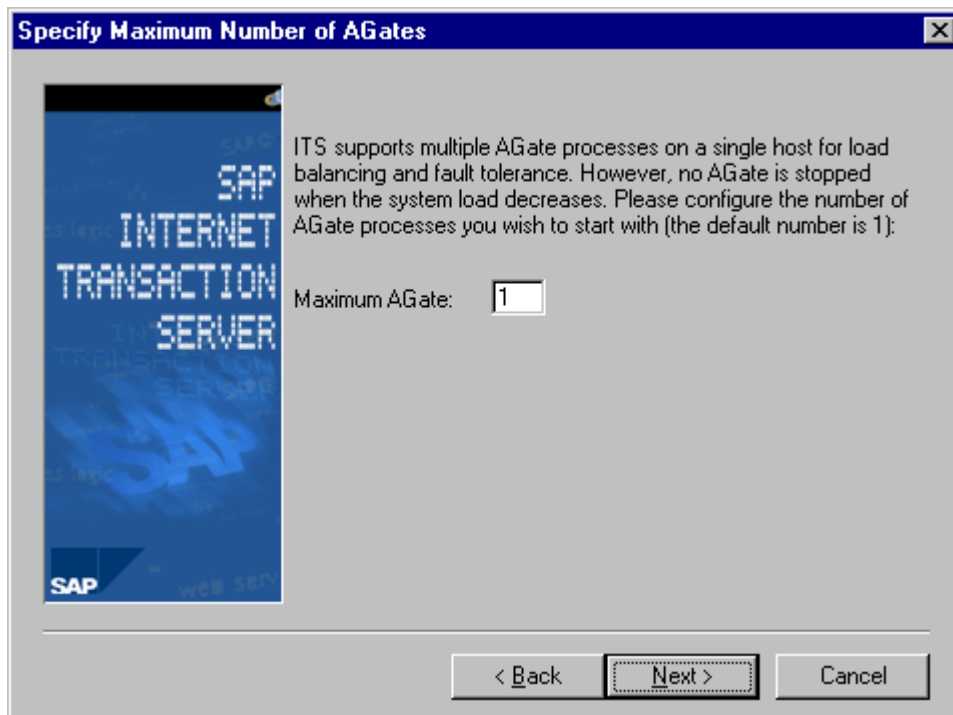
When you have selected all the packages you want, choose *Next*. You see a dialog asking you to confirm that you want to overwrite existing IACs.

Install IACs



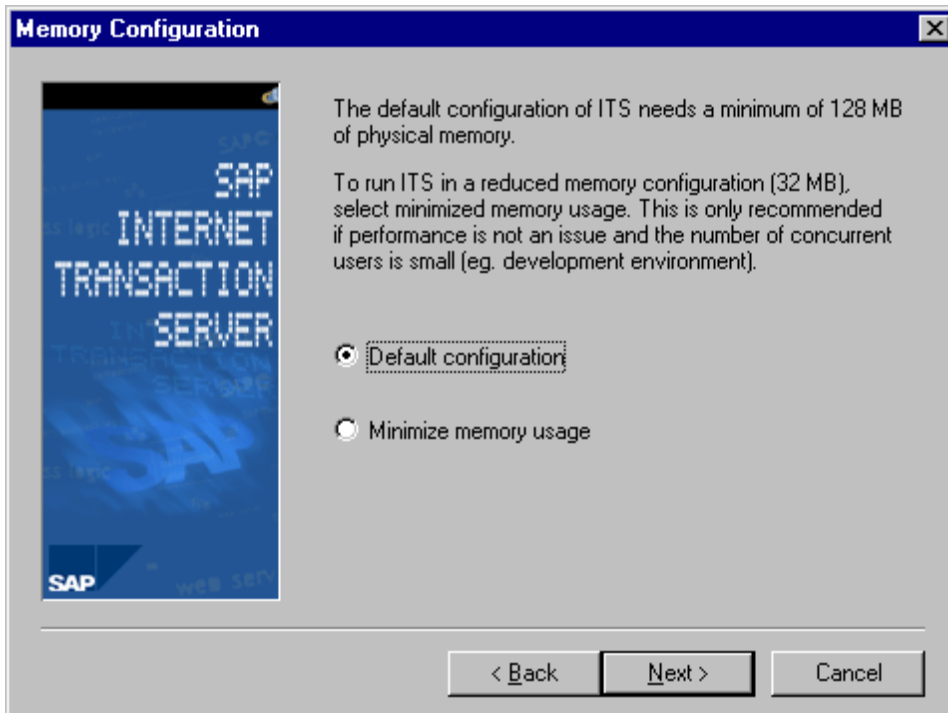
16. To confirm that you want to proceed, choose Yes.

Specify Maximum Number of AGate Processes



17. Specify the maximum number of AGate processes you need.

Select Configuration Type



18. Select a configuration type and choose *Next*.

- If you select *Default configuration*, the ITS is optimized for performance with a large number of concurrent users, and sized for a server with a minimum of 128 MB of physical memory. This configuration is suitable for production systems.
- If you select *Minimize memory usage*, the ITS is optimized for performance with a small number of concurrent users, and sized for a server with a minimum of 32 MB of physical memory. This configuration is suitable for development and test systems where performance is not critical. It is primarily intended to meet the needs of developers installing the ITS on their local machines.

If you chose *Administration* as the installation type (that is, you are installing an administration instance), the ITS setup program omits the next two dialogs, so you can skip to *Specify Security Access*.

Specify R/3 Logon Information

R/3 Login

SAP
INTERNET
TRANSACTION
SERVER

R/3 system

System Name:

Login information

The following account information will be placed in the global.srvc file and will be used for anonymous logins into the R/3 system.

Client:

R/3 User:

Password:

Confirm Password:

< Back Next > Cancel

19. Enter the following logon information, and then choose *Next*:

- *System Name*
Enter the 3-character name of the primary R/3 System with which the ITS is meant to communicate. This R/3 System must be Release 3.0D or higher.
- *Client*
Enter the global client used by the ITS to log on to the R/3 System.
- *R/3 User*
Enter the global user used by the ITS to log on to the R/3 System.
- *Password*
Enter a password for the R/3 user.
- *Confirm Password*
Enter the password again.

Specify R/3 Connection Information

R/3 Connection

Load Balancing

Message Server: Test

Port Number: or use SAP Router

Login Group: ...

Single Application Server

Application Server: ...

System Number:

SAP Router (optional)

SAP Router String: ...
e.g. /H/sapserv4

< Back Next > Cancel

20. Enter the message server information and choose *Next*.

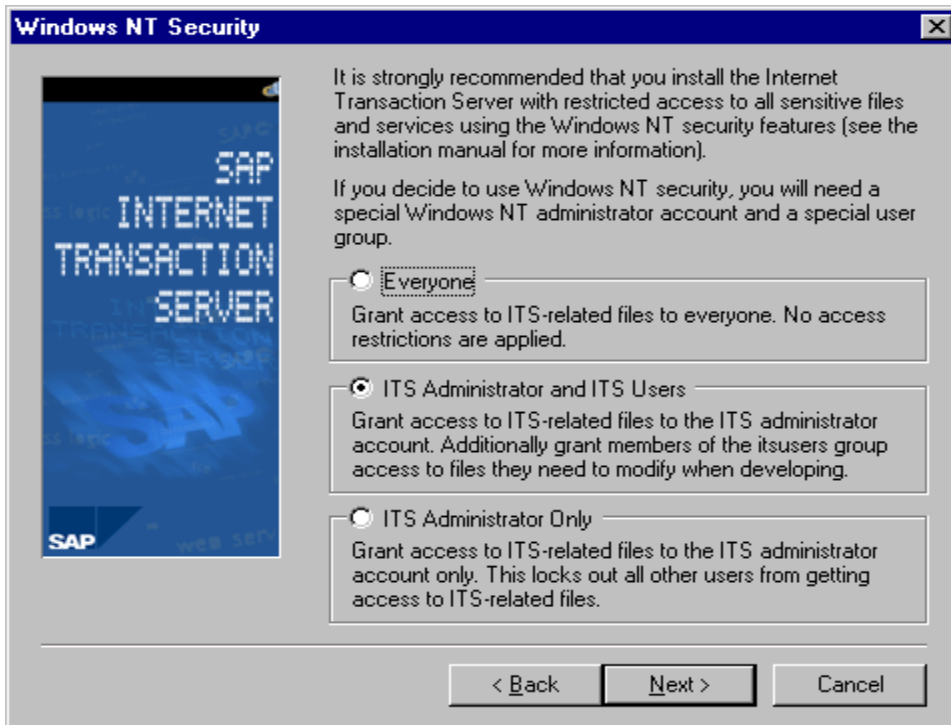
To guarantee a balanced load on all R/3 Systems, the ITS uses the R/3 message server to distribute access to multiple application servers. This is the default option, and should be used for all production systems. You can test the load balancing information by choosing *Test*.

For development systems where performance considerations are less critical, you can choose to connect to a single application server.

Depending on the option you select, enter information as specified in the following table.

Option	Field	Comments
<i>Load Balancing</i>	<i>Message Server</i>	Host name of the R/3 message server as it is known either by the domain name server (DNS) or the SAProuter.
	<i>Port Number</i>	Port number on which the message server is listening. Needed only if you do not specify a SAProuter (see <i>SAP Router String</i> below).
	<i>Login Group</i>	If you have entered a valid message server, and either a valid port number or SAProuter, you can use the button next to the <i>Login Group</i> field to get a list of login groups from the message server.
	<i>SAP Router String</i>	Identifies one or more SAProuter hosts and ports used to connect to the R/3 System. The syntax used is: <code>/H/<router>/S/<service></code> <code>router</code> is the host name of an SAProuter and <code>service</code> is either the service name or the port number of the SAProuter service. If <code>sapdp99/S/service</code> is missing, <code>sapdp99</code> is used as the default service name. To define more than one SAProuter, you can concatenate the strings in the same order the routers connect the AGate host to the R/3 System. If no SAProuter is used to connect to the R/3 System, leave this field blank. If there is a valid <code>saproute.ini</code> file in the Windows directory, you can use the button next to the <i>SAP Router String</i> field to get a list of SAProuters known to this machine.
<i>Single Application Server</i>	<i>Application Server</i>	Name of the application server. If you enter a valid message server and either a valid port number or SAProuter, you can use the button next to the <i>Application server</i> field to get a list of possible login groups from the message server.
	<i>System Number</i>	System number of application server.
	<i>SAP Router String</i>	See <i>SAP Router String</i> above.

Specify Security Access



21. Select a security access level.

The ITS setup program can configure Windows NT Security in a way that provides optimal security for your system.

If you select *ITS Administrator and ITS Users*, you restrict access to AGate, and thus to the service files, HTML templates, language resources and graphics, all of which may contain sensitive information. In this case, the ITS administrator account has full control of all files, while the ITS user group has the access rights required for development purposes.

During development, access restrictions may be undesirable. You should analyze your needs and decide whether to use the security restrictions provided by the ITS setup program, or whether to use some other security procedure.



SAP strongly recommends that you install the ITS with restricted access to all sensitive files and services using the Windows NT Security features.

The next steps depend on what security level you select, and whether you have chosen *Administration* as the installation type:

- If you chose *Administration* as the ITS installation type (that is, you are installing an administration instance), and you select *Everyone* as the security level, you go directly to *Start Setup*.
- If you chose *Typical* as the ITS installation type, and you select *Everyone* as the security level, you go to *Enter Home URL*.

Specify Security Accounts

Windows NT Accounts

ITS Administration Group Account

ITS Administrator: SAP_ALL\I012010

Password: [masked]

Confirm Password: [masked]

The ITS AGate will use the current user to run secure processes. To install the service using Windows NT security, you must enter a ITS admin group account.

ITS Admin Group: ITSAdministrators

ITS Users Group Account

ITS Users Group: ITS Users

Enter the NT user group authorized to develop Internet Applications Components. The format is domain\username.

Web Server Runtime Account

Web Server Account: IUSR_PAL100412 Automatic

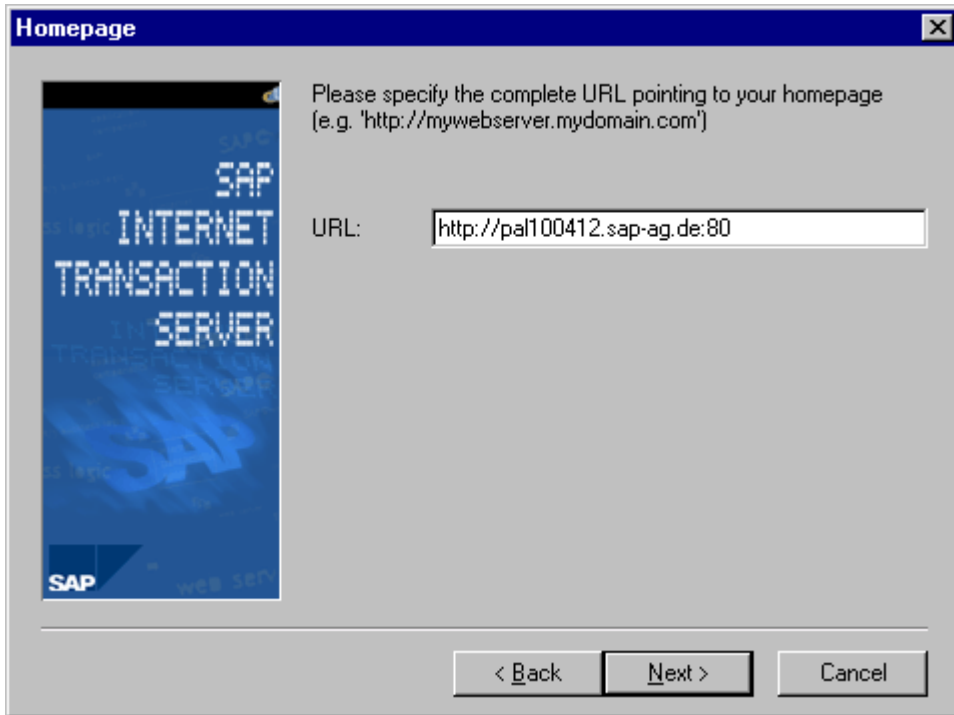
Enter the NT account name your web server is running under. The format is domain\username.

< Back Next > Cancel

22. If you are using Windows NT Security, enter information in the following fields to set up restricted access:

Field	Description
<i>ITS Administrator</i>	Name of ITS administrator account. The user running the ITS setup program must be the ITS administrator, so this name is displayed here. You cannot choose a different user.
<i>Password</i>	ITS administrator password.
<i>Confirm Password</i>	Repeat ITS administrator password.
<i>ITS Admin Group</i>	Name of ITS administrator group. Users in the ITS administrator group are authorized to perform administration tasks for one or more ITS instances, as determined by the ITS administrator.
<i>ITS Users Group</i>	Name of ITS user group. Users in the ITS user group are not authorized to perform administration tasks for any ITS instances. They have just view-only access.
<i>Web Server Account</i>	User account under which the Web server is running.

Enter the Home URL



Homepage

Please specify the complete URL pointing to your homepage
(e.g. 'http://mywebserver.mydomain.com')

URL:

< Back Next > Cancel

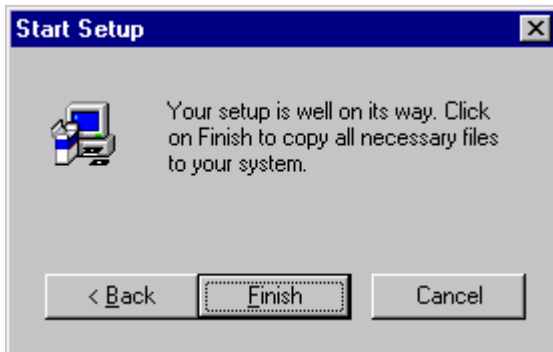
23. Enter the homepage URL information.

The URL you enter can be for your homepage or any other page that you want to present after an IAC has finished.

For example: `http://myserver.mydomain.com`

The page must be accessible by the client. You can modify this setting in the global service file `global.srvc` any time after the installation.

Finish Single Host Installation



24. To install the software as specified, choose *Finish*.

If you want to modify any of your settings, choose *Back* and proceed backwards through the installation procedure.

When you choose *Finish*, the ITS setup program completes the installation. A dialog asks if you want to read the Release Notes for the release.

25. Choose *Yes*.

Read the Release Notes to check for release changes. When you close the Release Notes, the *Setup is complete* dialog appears.

26. Confirm with *OK*.

Result

Your single host ITS installation is now complete. Continue by [checking the ITS installation \[Page 85\]](#).

Dual Host Installation

Purpose

This process describes how to install the Internet Transaction Server (ITS) on two separate hosts.

If you perform a dual host installation, the AGate is installed on the AGate host, and the WGate is installed on the Web host.

Prerequisites

You have performed all the [preparatory steps \[Page 22\]](#).

Before starting the installation, make sure that:

- The AGate host has Windows NT 4.0 Server installed.
- The Web server software is installed and operational on the Web host.
- Both computers are on the LAN and can ping each other.

To test this, log on to the Web host and enter the command `ping <AGate host>` from the command prompt. Use the equivalent ping command on the AGate host.

- All other applications are closed.

Process Flow

To perform a dual host installation, you need to:

1. [Install AGate on the AGate host \[Page 48\]](#).
2. [Install WGate on the Web host \[Page 68\]](#).

Installing AGate on the AGate Host

Prerequisites

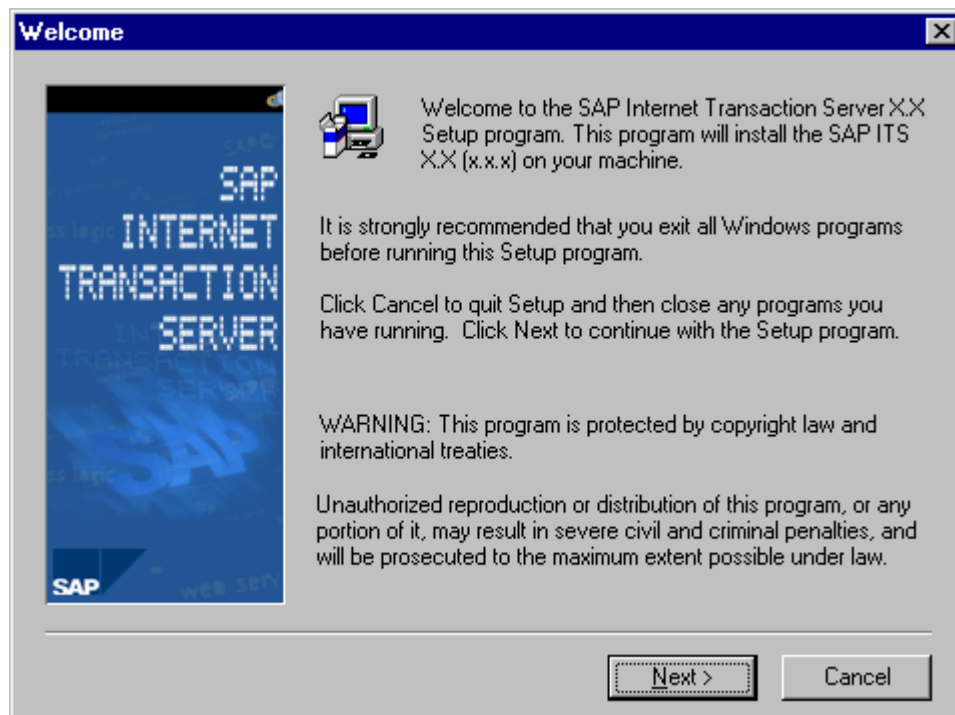
You have performed all the [preparatory steps \[Page 22\]](#).

Procedure

1. Log on to the AGate host with the ITS administrator account *ITSadm*.
2. Insert the presentation CD-ROM.
3. On the Windows NT 4.0 desktop, choose *Start* → *Run*.
4. Choose *Browse* and select the directory `\its\nt\i386` on the CD-ROM drive.
5. Double-click `setupits.exe` and choose *OK*.

You see the *Welcome* screen.

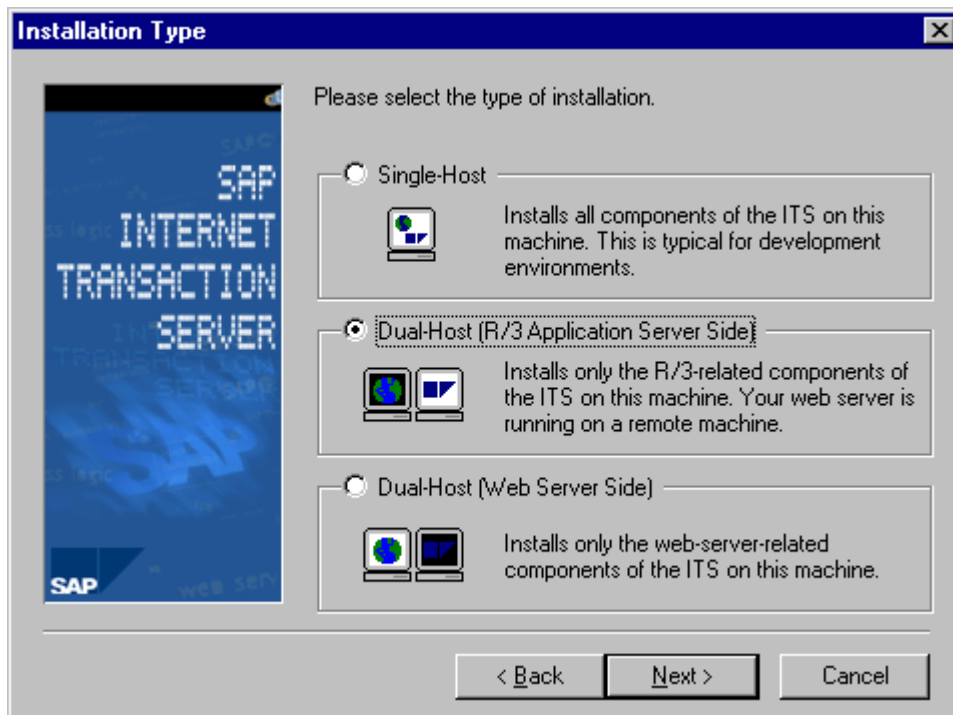
ITS Setup Program Welcome



6. Choose *Next*

You see the *Installation Type* screen.

Select Installation Type

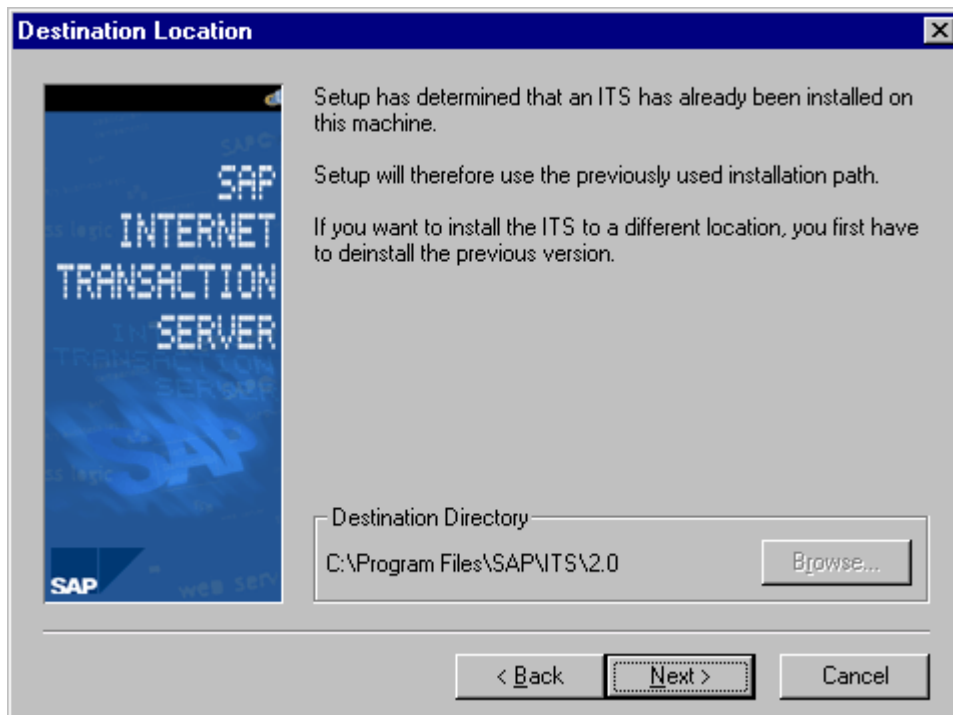


7. Select *Dual-Host (R/3 Application Server Side)* and choose *Next*.

SAP recommends that you always install the AGate (application server side) before the WGate (Web server side).

You see the *Destination Location* screen.

Select Destination Location

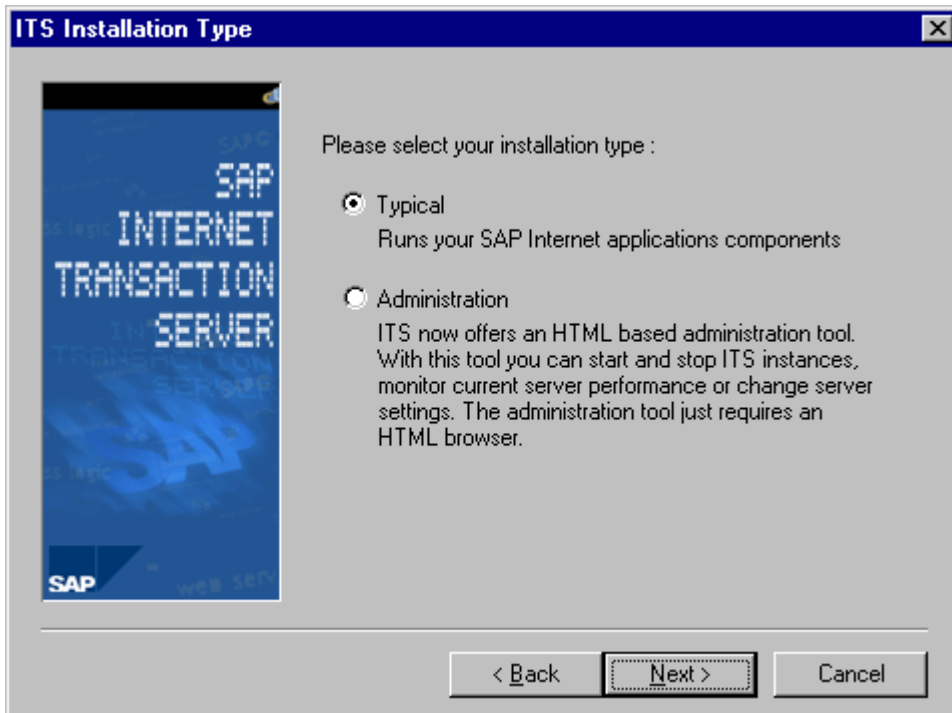


8. Choose *Next* to accept the default destination directory, or choose *Browse* to select a different destination.

If there is already an ITS instance installed on this machine, the previous installation directory is used. In this case, the *Browse* option is not activated, and you cannot change the destination.

When you choose *Next*, you see the *ITS Installation Type* screen.

Select ITS Installation Type



9. Select an ITS installation type and choose *Next*.



If you select *Administration*, the ITS setup program installs an ITS instance that runs ITS Administration. Like any other ITS instance, the administration instance must run under its own dedicated ITS server.

If you already have ITS 1.1 on this host, do not install a separate administration instance, because it will deinstall your current ITS instance. If you need to run ITS Administration, you should:

- i. Install an ITS of type *Typical*.
- ii. Install another ITS of type *Administration* to run ITS Administration.

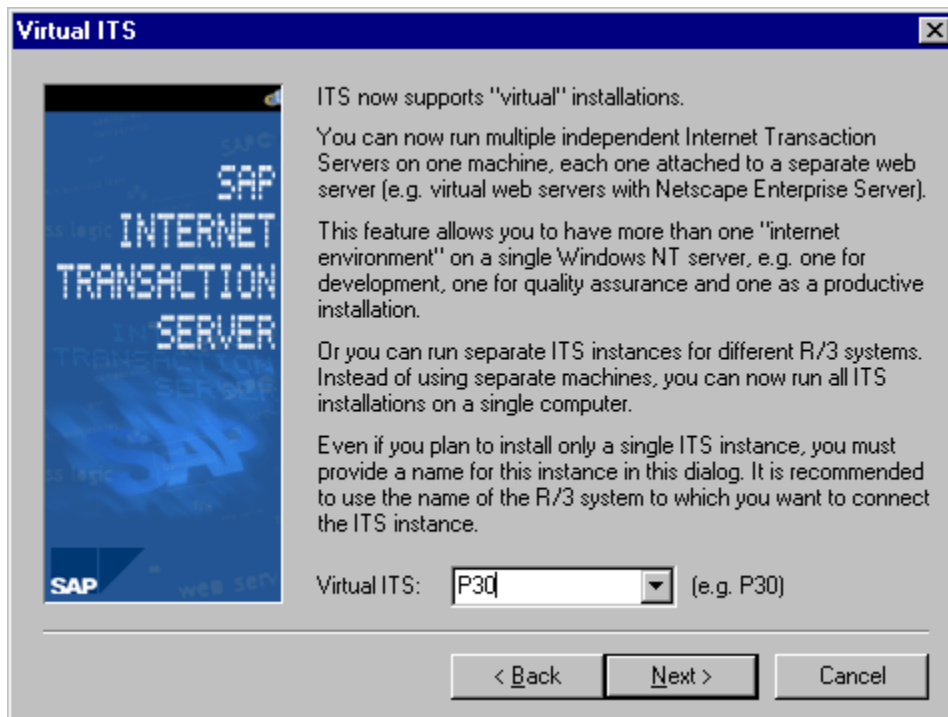
The ITS setup program informs you of this in a special dialog box.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

- In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.
- In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

When you choose *Next*, the ITS setup program prompts you for an ITS instance name. If you chose *Administration* as the installation type, the name *ADM* is proposed.

Specify Virtual ITS



10. Enter a virtual ITS instance name and choose *Next*.

SAP recommends that you use the R/3 System name as the instance name. If there are virtual ITS instances already installed on this machine, you can display their names in the dropdown list box.

Specify the Web Server URL

11. Enter the full URL address for accessing the Web server and choose *Next*.

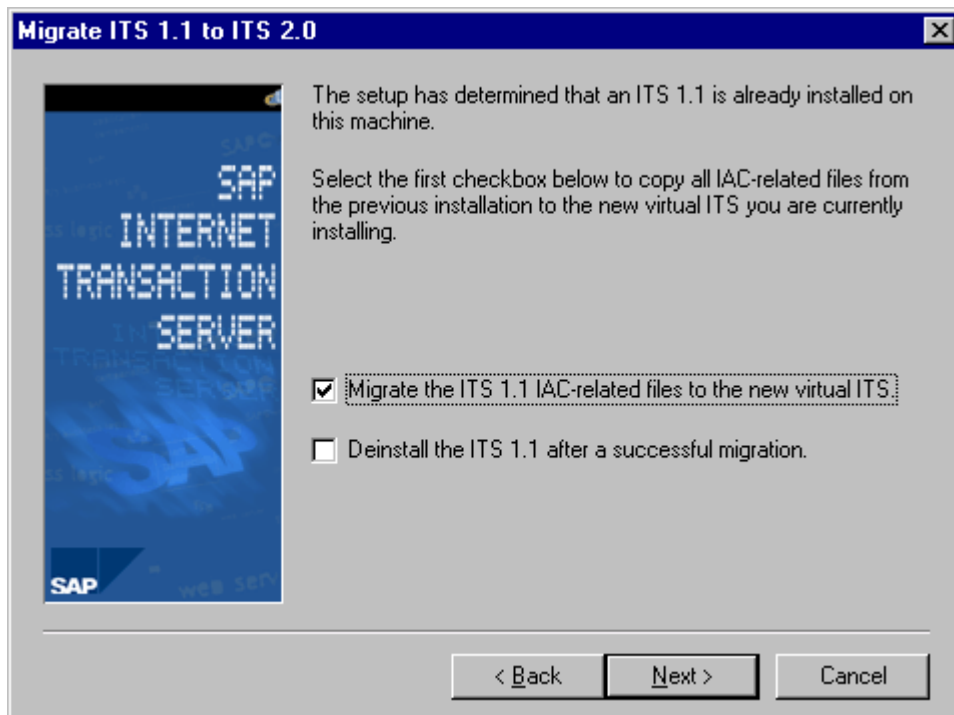
You don't need to enter the *HTTPS Access (Secure)* information, because the ITS setup program echoes this for you automatically. However, if you want to enter a different port (443 is the default), deselect *Automatic* to make the fields accept input.

When you choose *Next*, the system tells you if an older version of the ITS already exists on this host.

Your next few steps depend on whether you have an older ITS installed, or whether you chose *Administration* as the installation type:

- If you have ITS 1.1:
Continue with the *Migrate ITS 1.1 Files* step described here.
- If you have any other ITS, or no ITS at all,
The ITS setup program omits the upgrading and installing dialogs, so you can skip to *Specify Maximum Number of AGate Processes*.
- If you chose *Administration* as the installation type:
The ITS setup program omits the upgrading and installing dialogs, as well as the dialog for specifying the maximum number of AGate processes, so you can skip to *Select Configuration Type*.

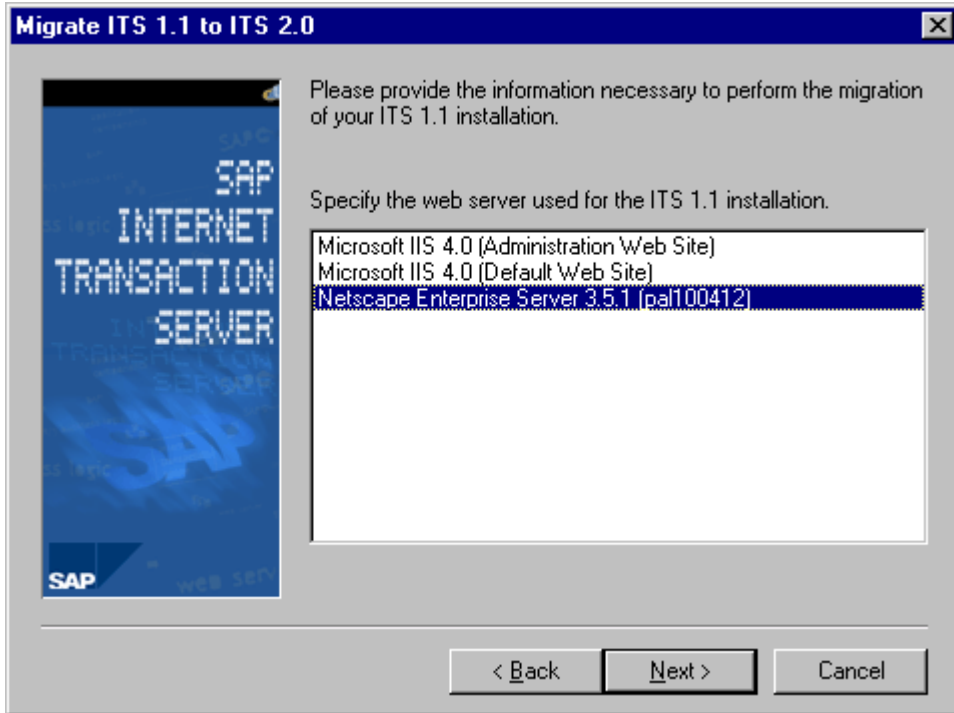
Migrate ITS 1.1 Files



12. Specify how you want to handle the old ITS installation, and choose *Next*.
 - To keep the existing files for the new ITS installation, select *Migrate the ITS 1.1 IAC-related files to the new virtual ITS*.
 - To delete the old ITS installation, select *Deinstall the ITS 1.1 after a successful migration*.

Specify Migration Information

To migrate the Web server part (WGate) of an ITS 1.1 installation, you must specify the name of the Web server used.

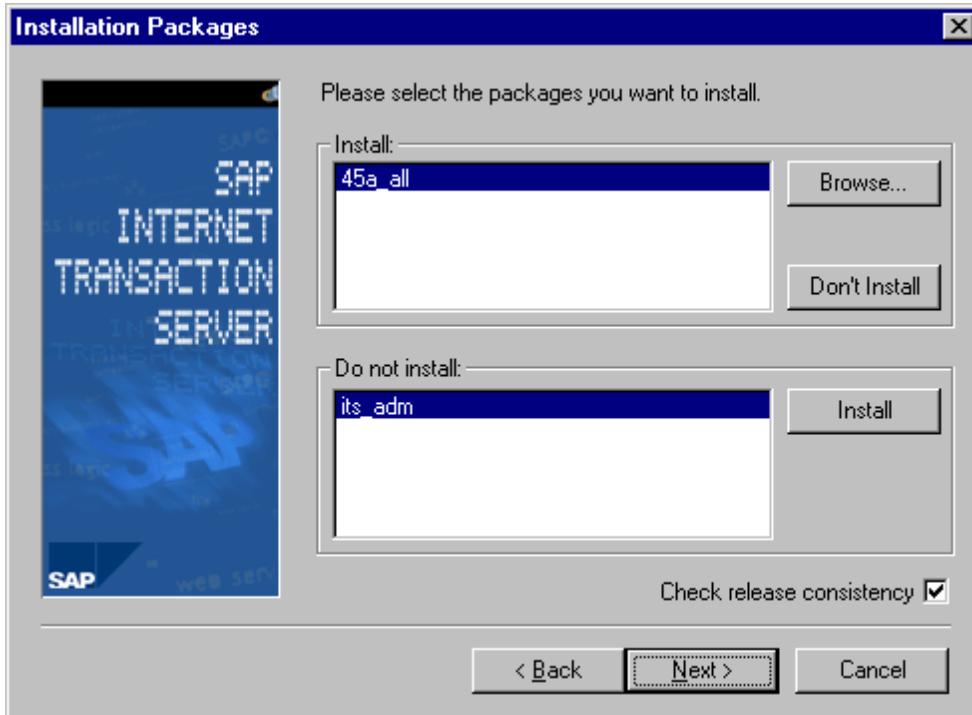


13. Select the desired Web server and choose *Next*.

Select Installation Packages

The ITS setup program asks you to choose the [IAC package\(s\) \[Page 13\]](#) you want to install.

- If you have ITS 2.0 or later, do **not** select any packages.
If the dialog below contains package names in the *Install* box, make sure that you select each one and choose *Don't Install*. Then, choose *Next*.
- If you have no ITS at all (that is, you are installing the ITS for the first time), continue with the steps below.



- Select the package you want to install and choose *Install*.

The *Install* box contains the standard package for the current release in the format `<release>_a11`. The screen above contains the standard package for Release 4.5A.

You can install more than one standard package. If you do this, make sure that *Check release consistency* is selected.

- If you do not want to install the standard package, choose *Don't install*.
- If you are installing an administration instance, select the administration package `its_adm` from the *Do not install* box and choose *Install*.
- If you are installing the SAP GUI for HTML, select the SAP GUI for HTML package `webgui` from the *Do not install* box and choose *Install*. (This is not shown in the above screen.)
- If you are installing a different language version, or an application-specific package, you may need to choose *Browse* to locate the correct package.



You cannot add packages to an existing ITS later by running the ITS setup program again, so make sure that you choose all the packages you need.

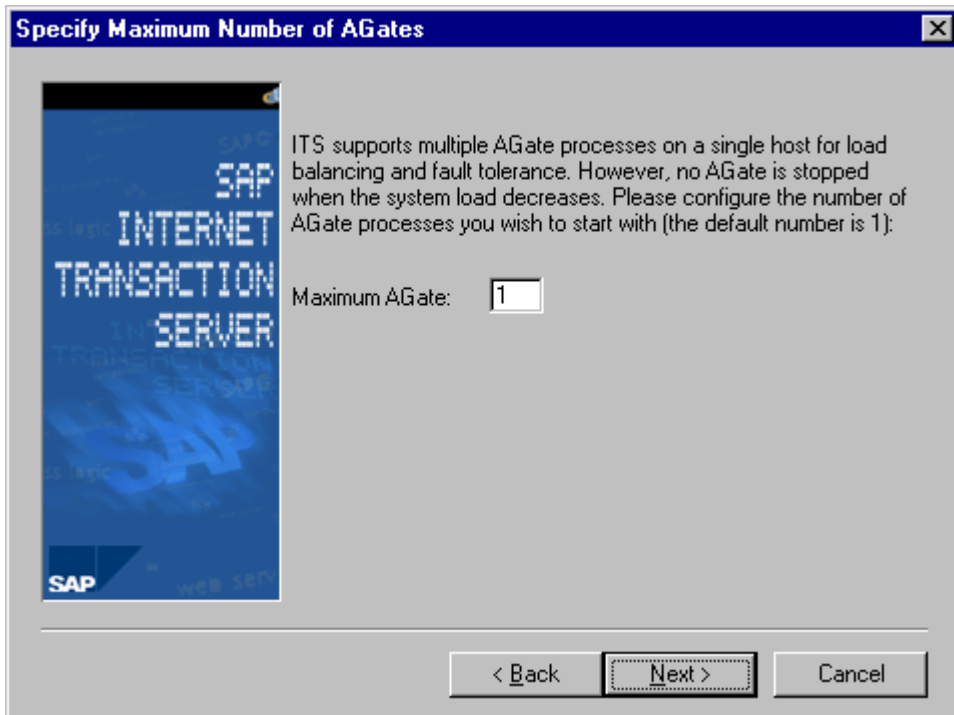
When you have selected all the packages you want, choose *Next*. You see a dialog asking you to confirm that you want to overwrite existing IACs.

Install IACs



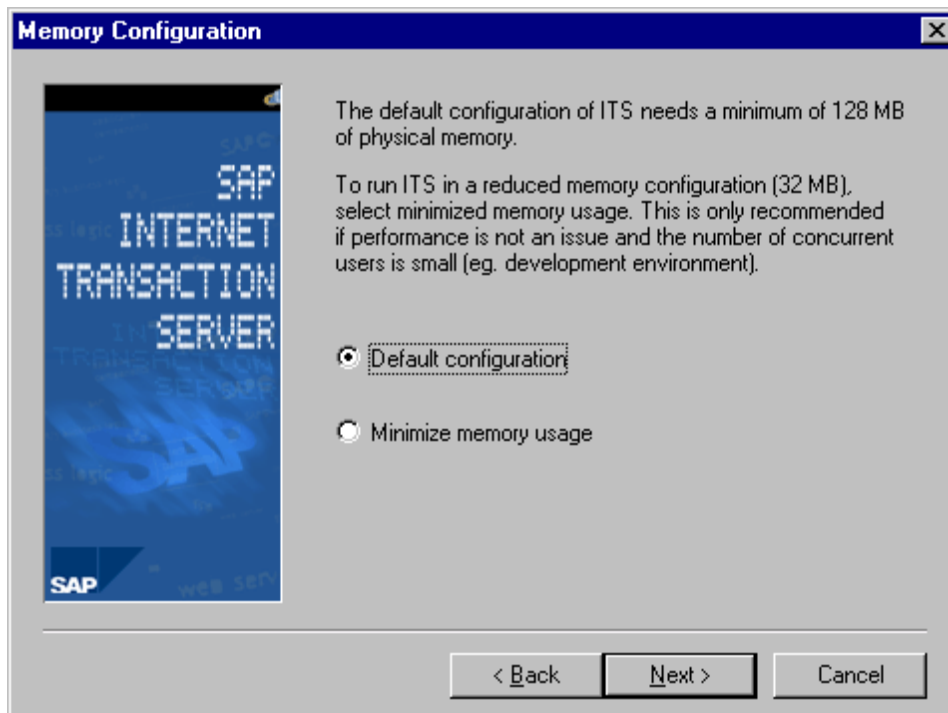
15. To confirm that you want to proceed, choose Yes.

Specify Maximum Number of AGate Processes



16 Specify the maximum number of AGate processes you need.

Select Configuration Type



17. Select a configuration type and choose *Next*.

- If you select *Default configuration*, the ITS is optimized for performance with a large number of concurrent users, and sized for a server with a minimum of 128 MB of physical memory. This configuration is suitable for production systems.
- If you select *Minimize memory usage*, the ITS is optimized for performance with a small number of concurrent users, and sized for a server with a minimum of 32 MB of physical memory. This configuration is suitable for development and test systems where performance is not critical. It is primarily intended to meet the needs of developers installing the ITS on their local machines.

If you chose *Administration* as the ITS installation type (that is, you are installing an administration instance), the ITS setup program omits the next two dialogs, so you can skip to *Specify Security Access*.

Specify R/3 Logon Information

R/3 Login

SAP
INTERNET
TRANSACTION
SERVER

R/3 system

System Name:

Login information

The following account information will be placed in the global.srvc file and will be used for anonymous logins into the R/3 system.

Client:

R/3 User:

Password:

Confirm Password:

< Back Next > Cancel

18. Enter the following logon information, and then choose *Next*.

- *System Name*
Enter the 3-character name of the primary R/3 System with which the ITS is meant to communicate. This R/3 System must be Release 3.0D or higher.
- *Client*
Enter the global client used by the ITS to log on to the R/3 System.
- *R/3 User*
Enter the global user used by the ITS to log on to the R/3 System.
- *Password*
Enter a password for the R/3 user.
- *Confirm Password*
Enter the password again.

Specify R/3 Connection Information

R/3 Connection

Load Balancing

Message Server:

Port Number: or use SAP Router

Login Group:

Single Application Server

Application Server:

System Number:

SAP Router (optional)

SAP Router String:
e.g. /H/sapserv4

19. Enter the message server information, and then choose *Next*.

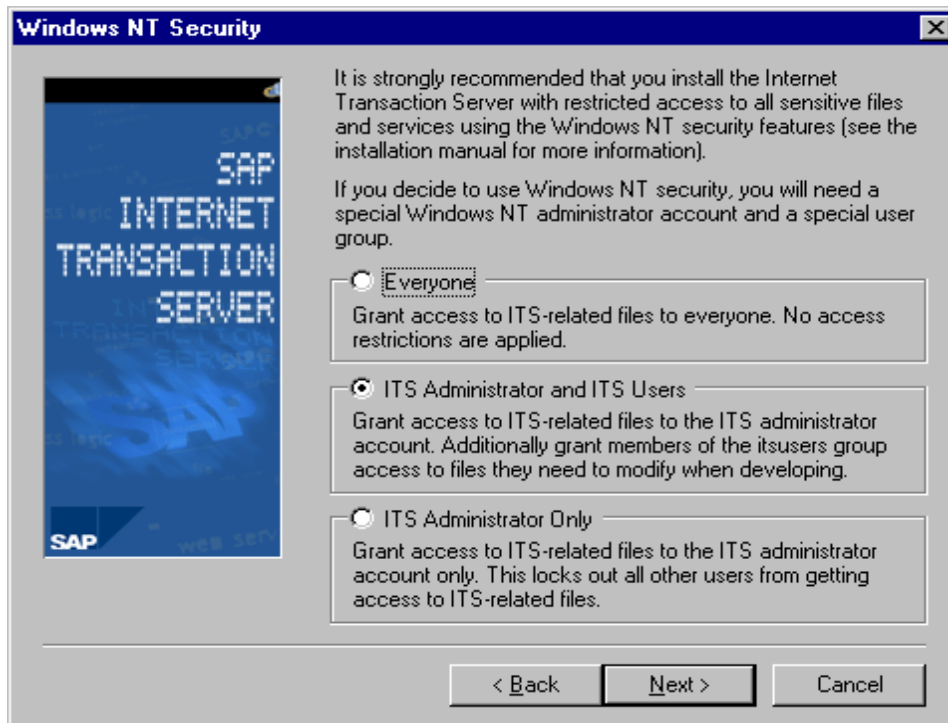
To guarantee a balanced load on all R/3 Systems, the ITS uses the R/3 message server to distribute access to multiple application servers. This is the default option, and should be used for all production systems. You can test the load balancing information by choosing *Test*.

For development systems where performance considerations are less critical, you can choose to connect to a single application server.

Depending on the option you select, enter information as specified in the following table.

Option	Field	Comments
<i>Load Balancing</i>	<i>Message Server</i>	Host name of the R/3 message server as it is known either by the domain name server (DNS) or the SAProuter.
	<i>Port Number</i>	Port number on which the message server is listening. Needed only if you do not specify a SAProuter (see <i>SAP Router String</i> below).
	<i>Login Group</i>	If you have entered a valid message server, and either a valid port number or SAProuter, you can use the button next to the <i>Login Group</i> field to get a list of login groups from the message server.
	<i>SAP Router String</i>	Identifies one or more SAProuter hosts and ports used to connect to the R/3 System. The syntax used is: <code>/H/<router>/S/<service></code> <code>router</code> is the host name of an SAProuter and <code>service</code> is either the service name or the port number of the SAProuter service. If <code>sapdp99/S/service</code> is missing, <code>sapdp99</code> is used as the default service name. To define more than one SAProuter, you can concatenate the strings in the same order the routers connect the AGate host to the R/3 System. If no SAProuter is used to connect to the R/3 System, leave this field blank. If there is a valid <code>saproute.ini</code> file in the Windows directory, you can use the button next to the <i>SAP Router String</i> field to get a list of SAProuters known to this machine.
<i>Single Application Server</i>	<i>Application Server</i>	Name of the application server. If you enter a valid message server and either a valid port number or SAProuter, you can use the button next to the <i>Application server</i> field to get a list of possible login groups from the message server.
	<i>System Number</i>	System number of application server.
	<i>SAP Router String</i>	See <i>SAP Router String</i> above.

Specify Security Access



20. Select a security access level.

The ITS setup program can configure the Windows NT Security in a way that provides optimal security for your system.

If you select *ITS Administrator and ITS Users*, you restrict access to AGate, and thus to the service files, HTML templates, language resources and graphics, all of which may contain sensitive information. In this case, the ITS administrator account has full control of all files, while the ITS user group has the access rights required for development purposes.

During development, access restrictions may be undesirable. You should analyze your needs and decide whether to use the security restrictions provided by the ITS setup program, or whether to use some other security procedure.



SAP strongly recommends that you install the ITS with restricted access to all sensitive files and services using the Windows NT Security features.

The next steps depend on what security level you select, and whether you have chosen *Administration* as the installation type:

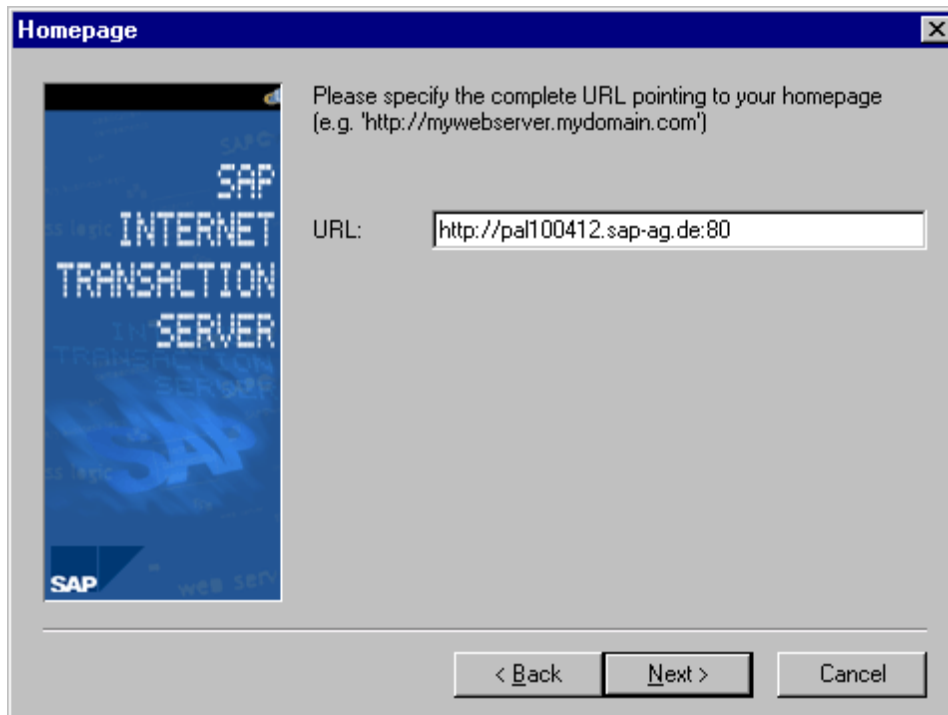
- If you chose *Administration* as the ITS installation type (that is, you are installing an administration instance), and you select *Everyone* as the security level, you go directly to *Start Setup*.
- If you chose *Typical* as the ITS installation type, and you select *Everyone* as the security level, you go to *Enter Home URL*.

Specify Security Accounts

21. If you are using Windows NT Security, enter information to set up restricted access:

Field	Description
<i>ITS Administrator</i>	Name of ITS administrator account. The user running the ITS setup program must be the ITS administrator, so this name is displayed here. You cannot choose a different user.
<i>Password</i>	ITS administrator password.
<i>Confirm Password</i>	Repeat ITS administrator password.
<i>ITS Admin Group</i>	Name of ITS administrator group. Users in the ITS administrator group are authorized to perform administration tasks for one or more ITS instances, as determined by the ITS administrator.
<i>ITS Users Group</i>	Name of ITS user group. Users in the ITS user group are not authorized to perform administration tasks for any ITS instances. They have just view-only access.
<i>Web Server Account</i>	User account under which the Web server is running.

Enter the Home URL



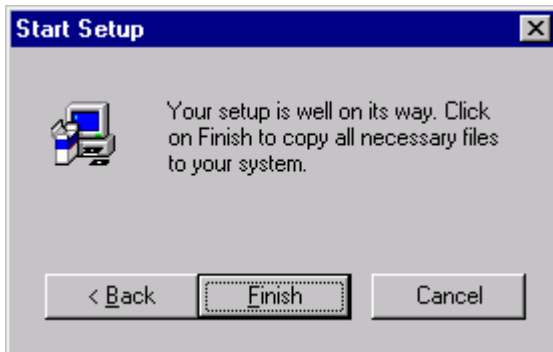
22. Enter the homepage URL information.

The URL you enter can be your own homepage or any other page that you want to present after an IAC has finished.

For example: `http://myserver.mydomain.com`

The page must be accessible by the client. You can modify this setting in the global service file `global.srv` any time after the installation.

Finish AGate Installation



23. To install the software as specified, choose *Finish*.

If you want to modify any of your settings, use the *Back* button to proceed backwards through the installation procedure.

When you choose *Finish*, the ITS setup program completes the installation. You then see a dialog, which asks if you want to read the Release Notes.

24. Choose *Yes*.

Read the Release Notes to check for release changes. When you close the Release Notes, you see the *Setup is complete* dialog.

25. Confirm with *OK*.

Result

Your installation of AGate is now complete. Continue by [installing WGate on the Web host \[Page 68\]](#).

Installing WGate on the Web Host

Prerequisites

You must [install AGate on the AGate host \[Page 48\]](#) first.

Procedure

1. Log on to the WGate host with the ITS administrator account *ITSadm*.
2. Insert the presentation CD-ROM.
3. On the Windows NT 4.0 desktop, choose *Start* → *Run*.
4. Choose *Browse* and select the directory `\its\nt\i386` on the CD-ROM drive.
5. Double-click `setupits.exe` and choose *OK*.

You see the *Welcome* screen.

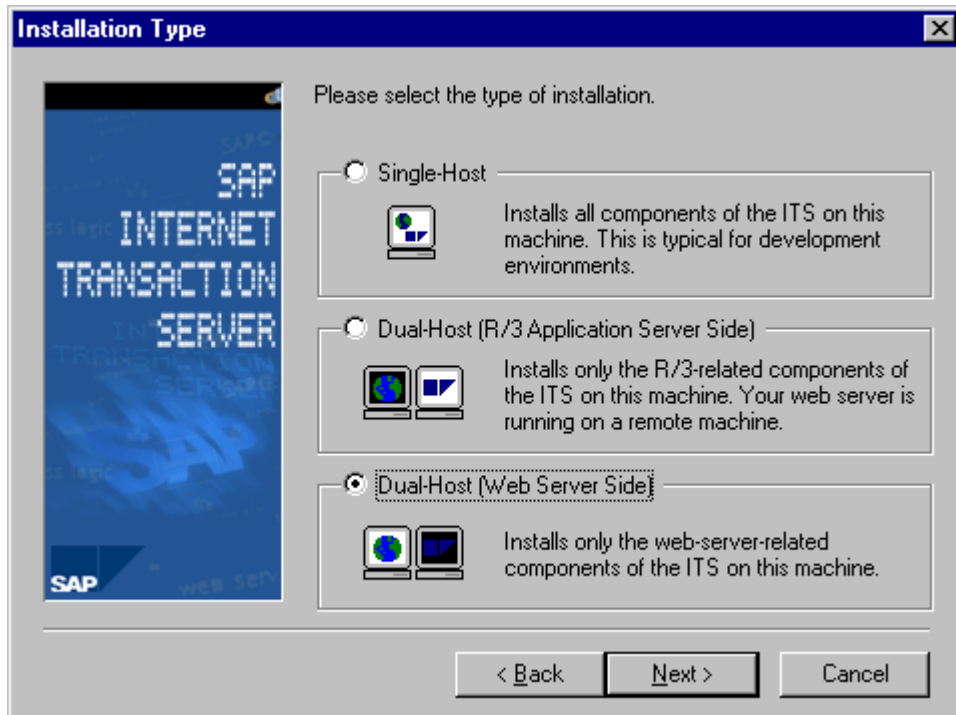
ITS Setup Program Welcome



6. Choose *Next*.

You see the *Installation Type* screen.

Select Installation Type

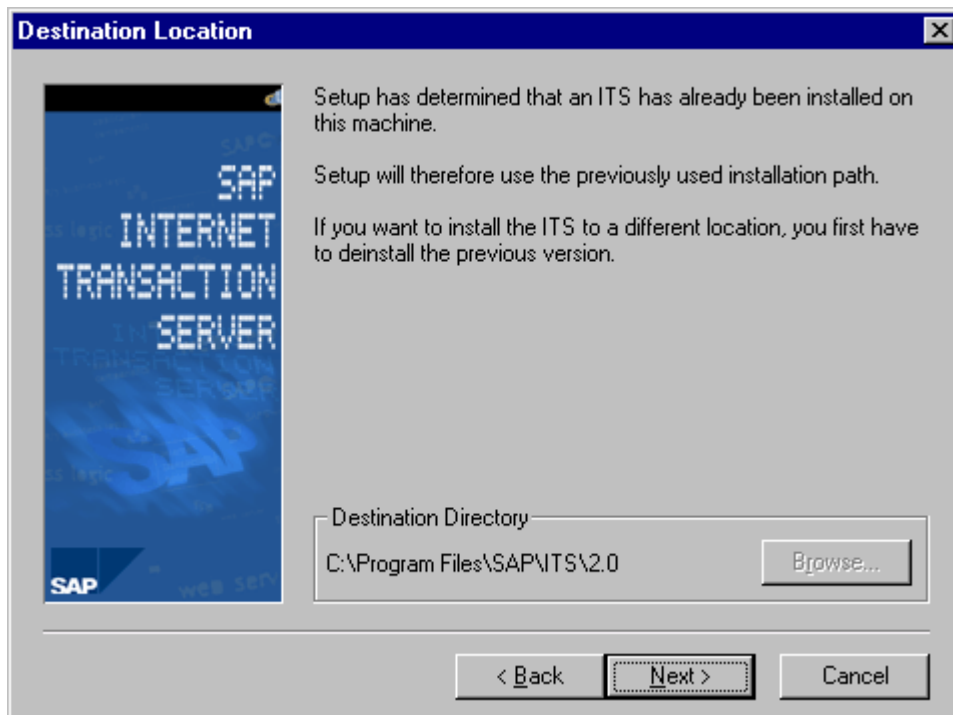


7. Select *Dual-Host (Web Server Side)* and choose *Next*.

SAP recommends that you always install the AGate (application server side) before the WGate (Web server side).

You see the *Destination Location* screen.

Select Destination Location

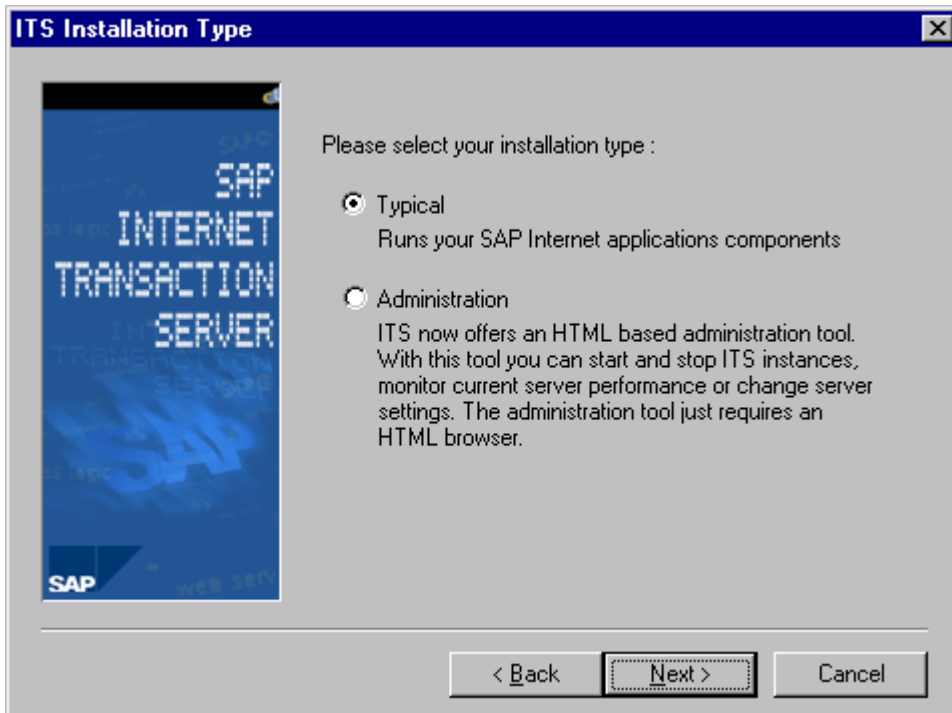


8. Choose *Next* to accept the default destination directory, or choose *Browse* to select a different destination.

If there is already an ITS instance installed on this machine, the previous installation directory is used. In this case, the *Browse* option is not activated, and you cannot change the destination.

When you choose *Next*, you see the *ITS Installation Type* screen.

Select ITS Installation Type



9. Select an installation type and choose *Next*.



If you select *Administration*, the ITS setup program installs an ITS instance that runs ITS Administration. Like any other ITS instance, the administration instance must run under its own dedicated ITS server.

If you already have ITS 1.1 on this host, do not install a separate administration instance, because it will deinstall your current ITS instance. If you need to run ITS Administration, you should:

- i. Install an ITS of type *Typical*.
- ii. Install another ITS of type *Administration* to run ITS Administration.

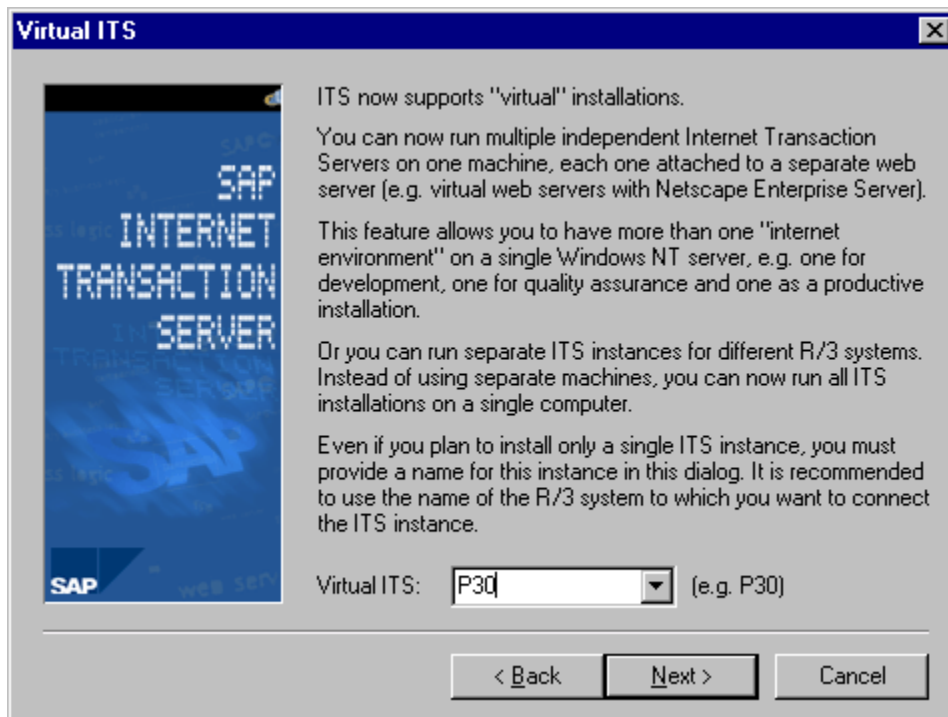
The ITS setup program informs you of this in a special dialog box.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

- In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.
- In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

When you choose *Next*, the ITS setup program prompts for an ITS instance name. If you chose *Administration* as the installation type, the name *ADM* is proposed.

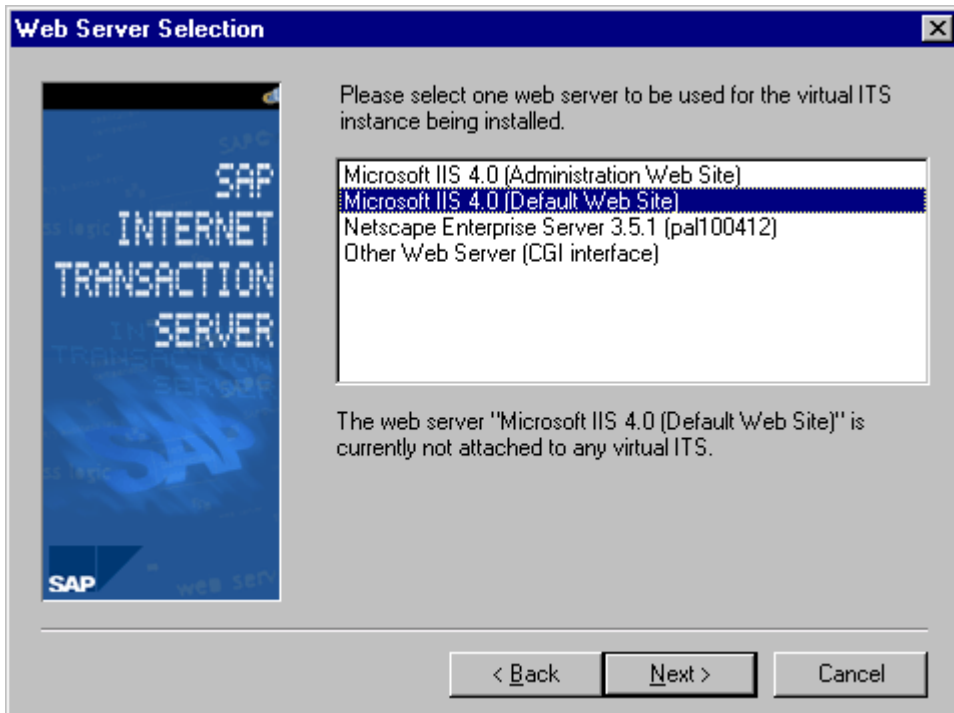
Specify Virtual ITS



10. Enter a virtual ITS instance name and choose *Next*.

SAP recommends that you use the R/3 System name as the instance name. If there are virtual ITS instances already installed on this machine, you can display their names in the dropdown list box.

Select a Web Server



11. Select a Web server and choose *Next*.

The ITS setup program states whether the server you select is already attached to a virtual ITS instance. You can only attach a Web server to one virtual ITS instance.

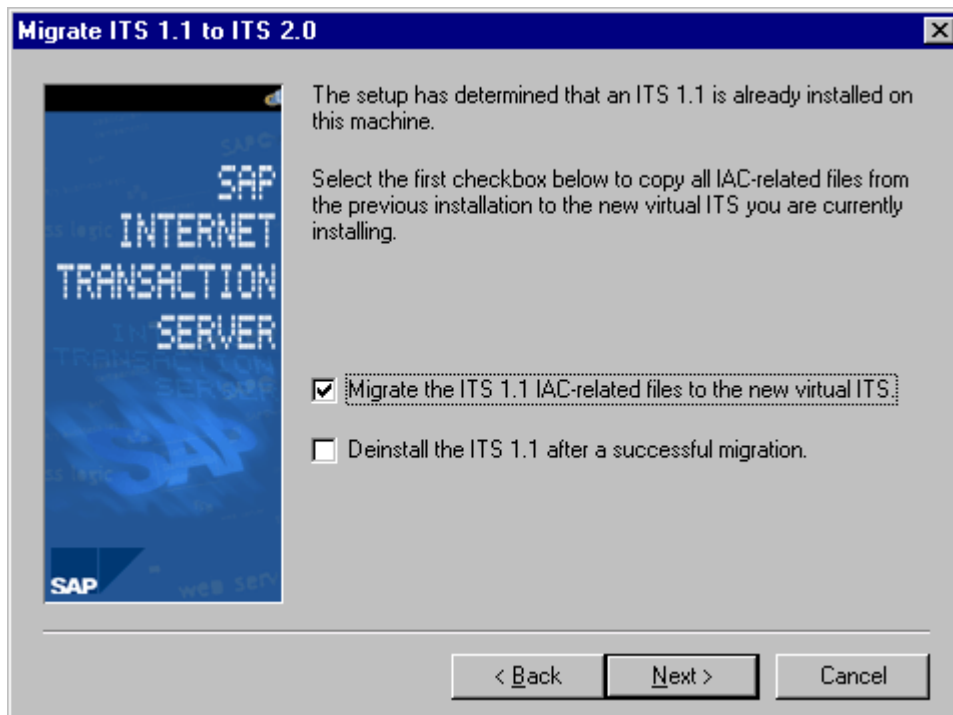
If you choose *Other Web Server (CGI interface)*, the ITS setup program prompts you for the *Documents* and *CGI Directories*. Otherwise, you go directly to the next step.

When you choose *Next*, the system tells you if an older version of the ITS already exists on this host.

Your next few steps depend on whether you have an older ITS installed, or whether you chose *Administration* as the installation type.

- If you have ITS 1.1:
 - Continue with the *Migrate ITS 1.1 Files* step described here.
- If you have any other ITS, or no ITS at all,
 - The ITS setup program omits the upgrading and installing dialogs, so you can skip to *Specify Maximum Number of AGate Processes*.
- If you chose *Administration* as the installation type:
 - The ITS setup program omits the upgrading and installing dialogs, as well as the dialog for specifying the maximum number of AGate processes, so you can skip to *Select Configuration Type*.

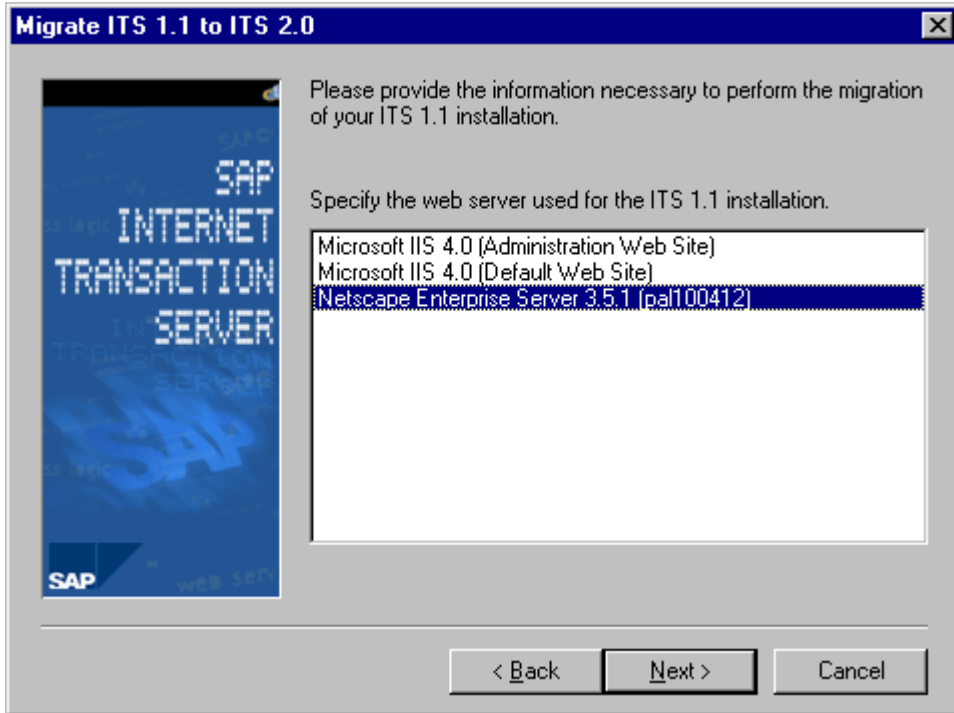
Migrate ITS 1.1 Files



12. Specify how you want the old ITS installation handled and choose *Next*.
 - To keep the existing files for the new ITS installation, select *Migrate the ITS 1.1 IAC related files to the new virtual ITS*.
 - To delete the old ITS installation, select *Deinstall the ITS 1.1 after a successful migration*.

Specify Migration Information

To migrate the Web server part (WGate) of an ITS 1.1 installation, you must specify the name of the Web server used.

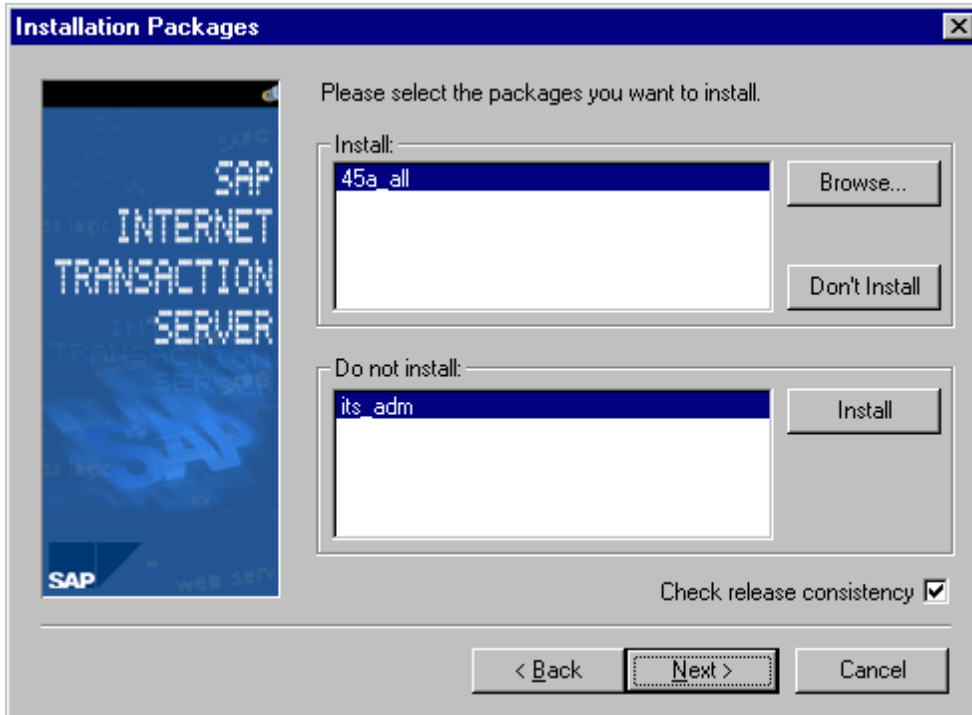


13. Select the desired Web server and choose *Next*.

Select Installation Packages

The ITS setup program asks you to choose the [IAC package\(s\) \[Page 13\]](#) you want to install.

- If you have ITS 2.0 or later, do **not** select any packages.
If the dialog below contains package names in the *Install* box, make sure that you select each one and choose *Don't Install*. Then, choose *Next*.
- If you have no ITS at all (that is, you are installing the ITS for the first time), continue with the steps below.



- Select the package you want to install and choose *Install*.

The *Install* box contains the standard package for the current release in the format `<release>_a11`. The screen above contains the standard package for Release 4.5A.

You can install more than one standard package. If you do this, make sure that *Check release consistency* is selected.

- If you do not want to install the standard package, choose *Don't install*.
- If you are installing an administration instance, select the administration package `its_adm` from the *Do not install* box and choose *Install*.
- If you are installing the SAP GUI for HTML, select the SAP GUI for HTML package `webgui` from the *Do not install* box and choose *Install*. (This is not shown in the above screen.)
- If you are installing a different language version, or an application-specific package, you may need to choose *Browse* to locate the correct package.



You cannot add packages to an existing ITS later by running the ITS setup program again, so make sure that you choose all the packages you need.

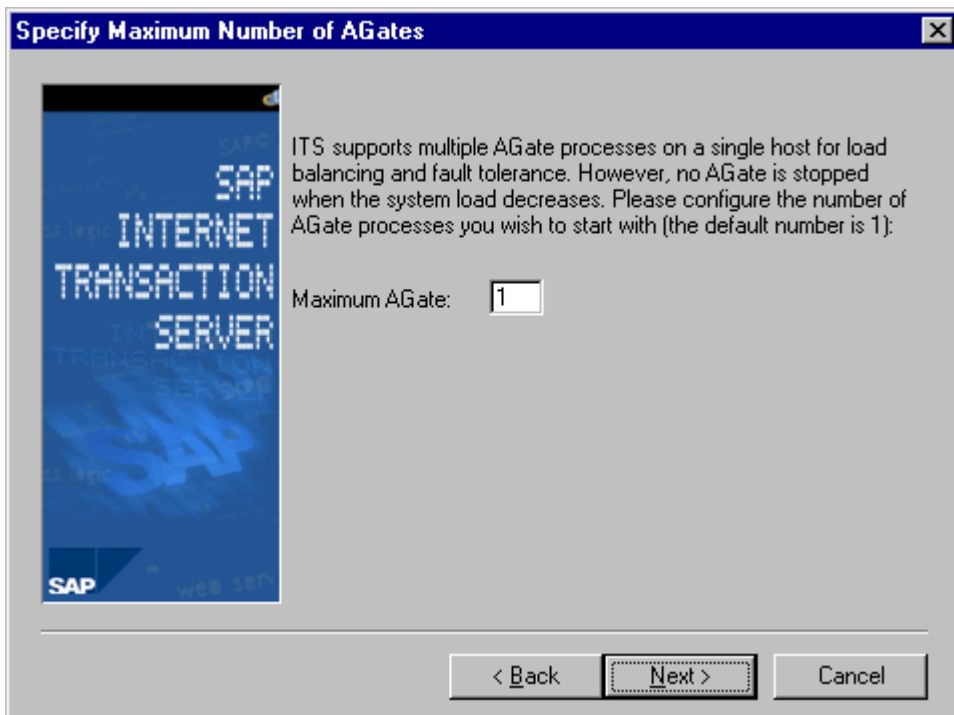
When you have selected all the packages you want, choose *Next*. You see a dialog asking you to confirm that you want to overwrite existing IACs.

Install IACs



15. To confirm that you want to proceed, choose Yes.

Specify Maximum Number of AGate Processes



16 Specify the maximum number of AGate processes you need.

Specify Connection to AGate Host

17. Enter values for the following and choose *Next*.

- *Name or IP address*

This is the AGate host name or address, as known by the domain name server (DNS).

- *AGate port number*

This is the port number on the AGate host that AGate is listening on.

- *ITS Manager port number*

If you select *Automatic*, this value is the value of the AGate port number, plus 9.

If you do not select *Automatic*, enter the port number as specified in the file

`<drive>:\<winnt>\system32\drivers\etc\services`

where `<drive>` is the system's hard drive and `<winnt>` is your Windows NT directory on the AGate host.

To get the correct value, find the port number for the port `sapavwmm_<virtual ITS>`.

Both the Web host and the AGate host must have identical settings for the AGate network ports `sapavw00_<virtual ITS>` and `sapavwmm_<virtual ITS>`.

- The default value of `sapavwmm_<virtual ITS>` is 3900.
- The default value of `sapavw00_<virtual ITS>` is the AGate port number, plus 9.

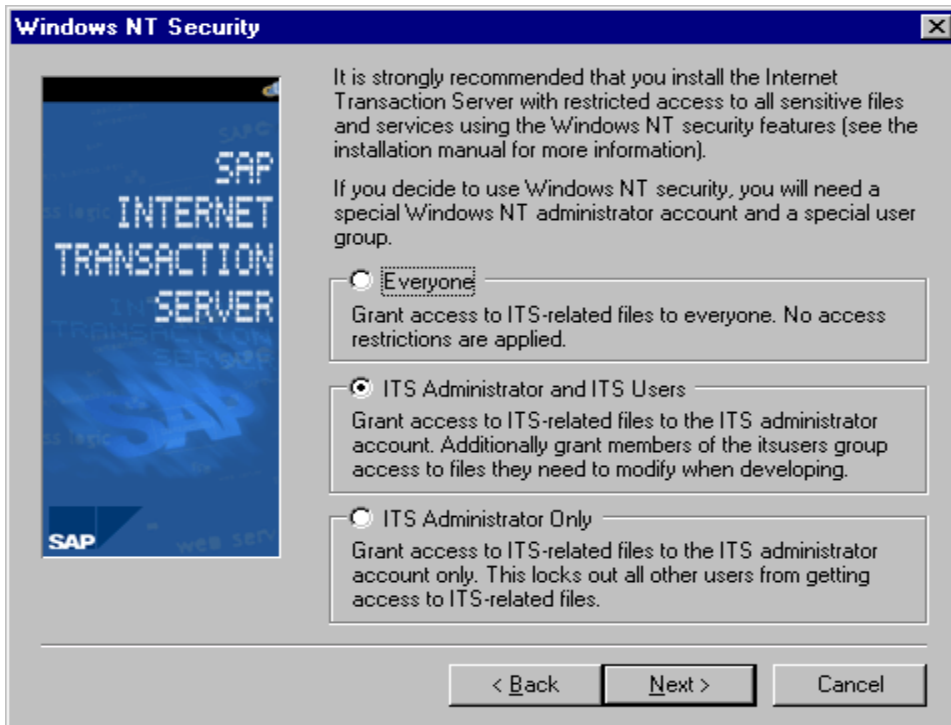
During the AGate installation, the entries are automatically added to the file

`<drive>:\<winnt>\system32\drivers\etc\services`

If port 3900 is already in use on the AGate host, the ITS setup program automatically chooses the next available block of 10 free ports. During the WGate installation, you must make sure that the same port number is used on the WGate host.

When you choose *Next*, the ITS setup program asks about security.

Specify Security Access



18. Select a security access level.

The ITS setup program can configure the Windows NT Security in a way that provides optimal security for your system.

If you select *ITS Administrator and ITS Users*, you restrict access to AGate, and thus to the service files, HTML templates, language resources and graphics, all of which may contain sensitive information. In this case, the ITS administrator account has full control of all files, while the ITS user group has the access rights required for development purposes.

During development, access restrictions may be undesirable. You should analyze your needs and decide whether to use the security restrictions provided by the ITS setup program, or whether to use some other security procedure.



SAP strongly recommends that you install the ITS with restricted access to all sensitive files and services using the Windows NT Security features.

The next steps depend on what security level you select, and whether you have chosen *Administration* as the installation type:

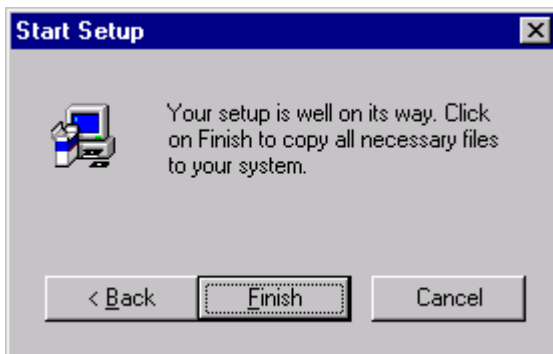
- If you chose *Administration* as the ITS installation type (that is, you are installing an administration instance), and you select *Everyone* as the security level, you go directly to *Start Setup*.
- If you chose *Typical* as the ITS installation type, and you select *Everyone* as the security level, you go to *Enter Home URL*.

Specify Security Accounts

19. If you are using Windows NT Security, enter information to set up restricted access:

Field	Description
<i>ITS Administrator</i>	Name of ITS administrator account. The user running the ITS setup program must be the ITS administrator, so this name is displayed here. You cannot choose a different user.
<i>Password</i>	ITS administrator password.
<i>Confirm Password</i>	Repeat ITS administrator password.
<i>ITS Admin Group</i>	Name of ITS administrator group. Users in the ITS administrator group are authorized to perform administration tasks for one or more ITS instances, as determined by the ITS administrator.
<i>ITS Users Group</i>	Name of ITS user group. Users in the ITS user group are not authorized to perform administration tasks for any ITS instances. They have just view-only access.
<i>Web Server Account</i>	User account under which the Web server is running.

Finish WGate Installation



20. To install the software as specified, choose *Finish*.

If you want to modify any of your settings, choose *Back* to proceed backwards through the installation procedure.

When you choose *Finish*, the ITS setup program completes the installation. You then see a dialog, which asks if you want to read the Release Notes.

21. Choose *Yes*.

Read the Release Notes to check for release changes. When you close the Release Notes, you see the *Setup is complete* dialog.

22. Confirm with *OK*.

Result

Your ITS installation is now complete. Continue by [checking the ITS installation \[Page 85\]](#).

Checking the ITS Installation

Prerequisites

You have performed a [single host installation \[Page 25\]](#) or a [dual host installation \[Page 47\]](#).

Procedure

When you have completed the ITS installation, you should do the following:

- Check that the installation was successful.
- Ensure that the R/3 System is available.
- Verify that the ITS connection between the Web browser and the R/3 System.

Was the Installation Successful?

To check that the installation ran successfully, log on to the host(s) that contain the ITS components (WGate, AGate, or both), and follow the procedures in the tables below.

Single Host Installation

Check	Procedure
Check that the Web server status is started and that startup is automatic.	<ol style="list-style-type: none"> 1. On the Windows NT desktop, choose <i>Start</i> → <i>Settings</i> → <i>Control Panel</i>. 2. Double-click on <i>Services</i>. 3. Find the Web server in the list of <i>Services</i> and check that the values in the <i>Status</i> and <i>Startup</i> columns are set to <i>Started</i> and <i>Automatic</i>.
Check that the WGate component is present.	<p>Look in the subdirectory <code>scripts</code> (or other relevant directory) of your Web server.</p> <ul style="list-style-type: none"> • If you are using the Microsoft Internet Information Server (IIS), you should find <code>wgate.d11</code> in the <code>scripts</code> directory (usually <code>C:\InetPub\scripts</code>). • If you are using the Netscape Enterprise Server (NES), you should find <code>wgate20.d11</code>, <code>wgate30.d11</code>, or <code>wgate35.d11</code> in the subdirectory <code>scripts</code> of the Web server's document root directory. <p>To see <code>.d11</code> files, make sure that your Windows NT Explorer displays all file types.</p>
Check that the ITS Manager is started and that startup is set to automatic.	<ol style="list-style-type: none"> 1. On the Windows NT desktop, choose <i>Start</i> → <i>Settings</i> → <i>Control Panel</i>. 2. Double-click on <i>Services</i>. 3. Find the ITS Manager in the list of <i>Services</i> and check that the values in the <i>Status</i> and <i>Startup</i> columns are set to <i>Started</i> and <i>Automatic</i>. The ITS Manager is listed as <i>ITS Manager - <virtual ITS></i>.

Dual Host Installation

Check	Procedure
On the Web host, check that the Web server is started and <i>Startup</i> is <i>Automatic</i> .	<ol style="list-style-type: none"> 1. On the Windows NT desktop, choose <i>Start</i> → <i>Settings</i> → <i>Control Panel</i>. 2. Double-click on <i>Services</i>. 3. Find the Web server in the list of <i>Services</i> and check that the values in the <i>Status</i> and <i>Startup</i> columns are set to <i>Started</i> and <i>Automatic</i>.
On the Web host, check that the WGate component is present.	<p>Look in the subdirectory <code>scripts</code> (or other relevant directory) of your Web server.</p> <ul style="list-style-type: none"> • If you are using the Microsoft Internet Information Server (IIS), you should find <code>wgate.dll</code> in the <code>scripts</code> directory (usually <code>C:\InetPub\scripts</code>). • If you are using the Netscape Enterprise Server (NES), you should find <code>wgate20.dll</code>, <code>wgate30.dll</code>, or <code>wgate35.dll</code> in the subdirectory <code>scripts</code> of the Web server's document root directory. <p>To see <code>.dll</code> files, make sure that your Windows NT Explorer displays all file types.</p>
On the AGate host, check that the ITS Manager is started and startup is set to automatic.	<ol style="list-style-type: none"> 1. On the Windows NT desktop, choose <i>Start</i> → <i>Settings</i> → <i>Control Panel</i>. 2. Double-click on <i>Services</i>. 3. Find the ITS Manager in the list of <i>Services</i> and check that the values in the <i>Status</i> and <i>Startup</i> columns are set to <i>Started</i> and <i>Automatic</i>. The ITS Manager is listed as <i>ITS Manager - <virtual ITS></i>.

Is the R/3 System Available?

To check that the R/3 System is available, start one of the transactions installed by the ITS setup program as a service:

1. Make sure that you have R/3 Release 3.0D or later installed and operating.
2. Choose a service `<service>.srvc` from the installation directory of your virtual ITS.

Unless you specified a different path during setup, you can find services under:

`C:\Program Files\SAP\ITS\2.0\<virtual ITS>\services`

3. Log on to the R/3 System via the SAP GUI and start the transaction.

Make sure that you enter the same logon information you specified during setup by checking the entries in the global service file `global.srvc`. Unless you specified a different path during setup, you can find the global service file under:

`C:\Program Files\SAP\ITS\2.0\<virtual ITS>\services`

Does the ITS Connection Work?

To test the ITS connection, start one of the services installed by the ITS setup program from a Web browser:

1. Choose a service `<service>.srvc` from the installation directory of your virtual ITS.

Unless you specified a different path during setup, you can find services under:

```
C:\Program Files\SAP\ITS\2.0\<virtual ITS>\services
```

2. Start a Web browser.
3. Enter the relevant URL:

The syntax for starting an ITS service from a Web browser via a URL is:

```
<protocol>://<server>:<port>/<execdir>/<wgateexec>/<service>/!
```

For full details about the values to enter for these syntax elements, see [Starting an ITS Service From a Web Browser \[Page 88\]](#).

You should see a logon screen for the service `<service>`.

If you do not see a logon screen, see [Troubleshooting the ITS Installation \[Page 90\]](#).

Starting an ITS Service From a Web Browser

When you have installed the Internet Transaction Server (ITS) and checked the installation, you can start a service directly from a Web browser by entering the relevant URL.

Procedure

To start an ITS service from a Web browser, enter a URL with the following syntax:

```
<protocol>://<server>:<port>/<execdir>/<wgateexec>/<service>/!
```

Here is a summary of the URL elements:

URL Element	Description	Example Value(s)
<protocol>	Transport protocol.	http or https
<server>	Name of your ITS Web server.	MyWebServer
<port>	Port number on which your Web server is listening. The default value is 80. <ul style="list-style-type: none"> For port number 80, you do not need to specify the value. For all other port numbers, you must specify a value. 	81
<execdir>	Directory location of WGate executable.	For Microsoft Internet Information Server (IIS) and other non-CGI Web servers: scripts For CGI Web servers: cgi-bin
<wgateexec>	WGate executable. This is either a .dll or .exe file. It is usually integrated into the Web server at runtime as a .dll file.	wgate For CGI Web servers, you must change the value to: wgate.exe
<service>	Name of ITS service to be started.	webgui
!	Final element. This is an integral part of the URL and must be included.	!



```
http://MyWebServer1/scripts/wgate/webgui/!
```

This URL calls the service `webgui` (SAP GUI for HTML) via the protocol `http`, using a Web server called `MyWebServer1` that is supported by Microsoft IIS, and listens on port 80. In this case, no port number has been specified, because 80 is the default value.

```
http://MyWebServer2:81/cgi-bin/wgate.exe/webgui/!
```

This URL calls the service `webgui` (SAP GUI for HTML) via the protocol `http`, using a Web server called `mywebserver2` that is supported by the CGI, and listens on port `81`.

Result

The service starts in your Web browser.

Troubleshooting the ITS Installation

Prerequisites

You have [checked the ITS installation \[Page 85\]](#).

Procedure

If you experience problems after installing the Internet Transaction Server (ITS), there are several steps you can take to troubleshoot the installation. You can:

- Empty the **TEMP** directory
- Check the trace files
- Modify the trace facility settings
- Change the AGate host
- Change the R/3 connection information
- Uninstall the ITS
- Report the problems to SAP

For full details, refer to the relevant procedure below.

Emptying the TEMP Directory

If you get error messages like *General file transfer error* when running the ITS setup program, make sure that your **TEMP** directory is empty.

Checking the Trace Files

To diagnose a problem, you can check the trace files located in the installation directory of your virtual ITS under:

```
C:\Program Files\SAP\ITS\2.0\

```

Modifying the Trace Facility Settings

To diagnose a problem, you can modify the trace facility settings in the Windows NT registry.



Changing the trace facility settings can adversely affect performance.

You can modify the following trace facility settings, as specified in the tables below:

- **HKEY_LOCAL_MACHINE\SOFTWARE\SAP\ITS\2.0\Programs\AGate\IoalTraceLevel**

Description	Trace level for tracing the ITS interface to the R/3 System.	
Default	1	Errors only.
Range	1	Errors only.
	2	Errors and warnings.
	3	Errors, warnings, and information records.

- `HKEY_LOCAL_MACHINE\SOFTWARE\SAP\ITS\2.0\<virtual ITS>\Traces\TracePath`

Description	Path where all virtual ITS trace files are stored.
Default	<code>C:\Program Files\SAP\ITS\2.0\<virtual ITS>\Traces</code>

- `HKEY_LOCAL_MACHINE\SOFTWARE\SAP\ITS\2.0\virtual ITS>\Traces\...`

Followed by:	<ul style="list-style-type: none"> ...AGate\TraceLevel ...MManager\TraceLevel ...SAPjulep\TraceLevel ...SAPirf\TraceLevel ...SAPxGDK\TraceLevel
Description	Trace level for corresponding trace type.
Default	1 Errors only.
Range	1 Errors only.
	2 Errors and warnings.
	3 Errors, warnings, and information records.

- `HKEY_LOCAL_MACHINE\SOFTWARE\SAP\ITS\2.0\virtual ITS>\Traces\...`

Followed by:	<ul style="list-style-type: none"> ...AGate\TraceAppend ...MManager\TraceAppend ...SAPjulep\TraceAppend ...SAPirf\TraceAppend ...SAPxGDK\TraceAppend
Description	Toggle switch to select one or more trace files. Do not change.
Default	1 Only one trace file; additional records are always appended.
Range	1 Only one trace file; additional records are always appended.
	0 Each new version creates a new trace file; the old one is renamed with a timestamp in the trace file name.

Changing the AGate Host

To change the AGate host:

1. Run the ITS setup program for the AGate as described in the section [Dual Host Installation \[Page 47\]](#).
2. Change the Windows NT registry key on the WGate host that points to the new AGate.

To do this go to:

`HKEY_LOCAL_MACHINE\SOFTWARE\SAP\ITS\2.0\<virtual ITS>\Connects\Host`

Changing the R/3 Connection Information

For each ITS service, there is a service file called `<service>.srvc`, where `<service>` is the service name.

There is also a global service file called `g1oba1.srvc`, which contains settings that apply to all services.

All service files are located in the installation directory of your virtual ITS under:

```
C:\Program Files\SAP\ITS\2.0\\services
```

You can create, modify, and manage service files in the SAP@Web Studio. If you modify them manually using a text editor, do not change the file structure or the syntax.

The ITS setup program writes R/3 connection information to the global service file `global.srvc`, but you can modify this information according to your requirements. You can also define separate connection information for each service in the `<service>.srvc` file.

Settings in service-specific files always override settings in the global service file.

Uninstalling the ITS

Sometimes, it is more convenient to uninstall the ITS and run the ITS setup program again.

Before uninstalling the ITS, SAP recommends that you:

- Make a backup copy of all the files you want to keep.
- Stop your Web server and the ITS Manager service.

To uninstall the ITS, log on as the ITS administrator and use the standard Windows NT 4.0 uninstall procedure.

To do this from the Windows NT 4.0 desktop, choose *Start* → *Settings* → *Control Panel* → *Add/Remove Programs*.

Reporting Problems to SAP

If you cannot solve a problem, you can report it to SAP. When doing this, please provide as much information as possible. In particular, you should:

1. Make a note of the error message you see in the Web browser.
2. Save all current trace files.

The default location of the trace files is:

```
C:\Program Files\SAP\ITS\2.0\\traces\
```

3. Find a way to reproduce the error.
4. Make a note of your configuration

This information should include details such as Windows NT version, host name(s), Web server software, Web browser software, network/firewall configuration, user accounts, and so on.

SAP@Web Studio Installation

Purpose

This process describes the main steps for installing the SAP@Web Studio.

The SAP@Web Studio is a tool for creating, modifying, and managing the files required by the Internet Transaction Server (ITS) to run R/3 transactions as Internet Application Components (IACs).

SAP recommends that you install the SAP@Web Studio on all development and administration workstations used for ITS-related work.



SAP@Web Studio installation tools must be used in accordance with the instructions given, and for the purposes described, in this documentation. Improper use can damage existing files and systems.

Prerequisites

You have [installed the ITS \[Page 16\]](#).



Before you proceed with the installation, you should also read the following notes in the Customer Service System:

0105055 ITS, R/3 and Web Server Supported Releases

0113914 SAP Internet Transaction Server Release 2.2 News

0180288 SAP Internet Transaction Server Release 4.6A

These notes contain the latest installation and upgrade information.

Process Flow

When installing the SAP@Web Studio, you need to take the following main steps:

1. [Check the installation requirements \[Page 94\]](#).
2. [Perform the preparatory steps \[Page 95\]](#).
3. [Perform the installation \[Page 96\]](#).
4. [Set up the R/3 server \[Page 97\]](#).

SAP@Web Studio Installation Requirements

Purpose

This process describes the hardware and software requirements you need to satisfy before installing the SAP@Web Studio.

Process Flow

1. Check the hardware requirements specified below.
2. Check the software requirements specified below.

Hardware Requirements

Component	Requirement
Processor	Pentium PC compatible architecture.
Backup (optional)	Either over network or tape drive (DAT 4mm or DLT; hardware compression recommended).
CD-ROM drive	ISO 9660 compatible.
Hard disk	1 GB (with at least 50 MB free space).
Memory (RAM)	64 MB.

Software Requirements

Component	Requirement
Operating system	Windows NT 4.0.
Virtual memory	According to Microsoft guidelines.
File system	NTFS.
Network TCP/IP	Installed.

Preparing for SAP@Web Studio Installation

Prerequisites

You have read the [installation requirements \[Page 94\]](#).

Procedure

1. Make sure that the `TEMP` directory is empty.
2. For security reasons, use the Windows NT File System (NTFS) to store ITS files.
NTFS fully supports Windows NT security and long file names.
To check that you are using NTFS:
 - a. Select the hard drive icon in the Windows NT Explorer.
 - b. Click the right mouse button.
 - c. Choose *Properties*.
 - d. Choose the *General* tab.
 - e. Check that the specified file system is NTFS.
3. Check that your version of Windows NT is 4.0 or later.
4. If there is no SAP GUI on the system where you have installed the Internet Transaction Server (ITS), and you are not using a SAProuter to access your R/3 System, add SAP ports manually to the `services` file, which you can find under:

```
<drive:>\Winnt\system32\drivers\etc\  
sapdp<systemnumber>          32<systemnumber>  
sapgw<systemnumber>         33<systemnumber>
```

where `<systemnumber>` is the two-digit number, which identifies your R/3 instance.
If you append these entries to the end of the `services` file, make sure that there is an additional line at the end, that is, make sure that the `sapgw<systemnumber>` entry is not the last line.
6. Make sure that all other applications are closed.

Result

You are now ready to [install the SAP@Web Studio \[Page 96\]](#).

Installing the SAP@Web Studio

This procedure describes how to install the SAP@Web Studio.

Prerequisites

You have read the [installation requirements \[Page 94\]](#) and taken the [preparatory steps \[Page 95\]](#).

Procedure

1. Log on to the Windows NT 4.0 server with the ITS administrator account *ITSadm*.
2. Insert the presentation CD-ROM.
3. On the Windows NT 4.0 desktop, choose *Start → Run*.
4. Choose *Browse* and select the subdirectory `studio\NT\i386` on the CD-ROM drive.
5. Double-click `setupstu.exe` and choose *OK*.
6. Choose *Next*.
7. Choose the destination directory.
The default is `C:\Program Files\SAP\Studio`
8. Choose *Next*.
9. Select *Yes, I want to restart my computer now*.
10. Choose *OK*.

Result

The SAP@Web Studio is installed. You should now [set up the R/3 server \[Page 97\]](#).

Setting up the R/3 Server

Use

This procedure describes how to set up the R/3 server for the HTML template generator and the ITS source control in the SAP@Web Studio:

Prerequisites

You have [installed the SAP@Web Studio \[Page 96\]](#).

Procedure

1. Start the SAP@Web Studio from the Windows NT 4.0 Desktop by choosing *Start* → *Programs* → *SAP@Web Studio* → *Studio <release>*.
2. Choose *Options* → *R/3 Systems*.

You see the *Select R/3 System* screen, which contains a list of all R/3 Systems currently maintained in the SAP Logon application.

To specify a different R/3 System, or change an existing entry, choose *New* or *Edit*, or use the *Groups* or *Servers* selection options.

3. Select an R/3 System

ITS Instance Maintenance

Purpose

This process describes how to create and manage additional Internet Transaction Server (ITS) instances manually, using command line prompt utilities.



Whenever possible, you should perform all ITS instance maintenance tasks with ITS Administration. To access this tool, you need to install an administration instance of the ITS.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.

In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

Prerequisites

You have [performed the initial ITS installation \[Page 16\]](#), which creates the physical version of the ITS, and one virtual ITS instance.

Process Flow

You can use command prompt utilities to:

- [Create ITS instances \[Page 99\]](#)
- [Start and stop ITS instances \[Page 107\]](#)
- [Set the security level of ITS instances \[Page 109\]](#)
- [Uninstall ITS instances \[Page 114\]](#)
- [Migrate earlier ITS versions \[Page 116\]](#)
- [Migrate ITS files from R/3 Release 3.x to Release 4.x \[Page 118\]](#)

Creating ITS Instances

Use

Use this procedure to create Internet Transaction Server (ITS) instances manually.

Prerequisites

When you have performed an initial installation, you can create additional ITS instances, but you should observe the following conditions:

- Relationship between ITS instances and R/3 Systems.
You can assign several ITS instances to one R/3 System.
You can assign one ITS instance to several R/3 systems, but SAP does not recommend this configuration.
- Relationship between ITS instances and Web server instances.
Each ITS instance should be assigned to a separate Web server instance. For this reason, the Web server must support multiple instances:
 - Microsoft Internet Information Server (IIS) supports multiple instances as of Version 4.0.
 - Netscape Enterprise Server (NES) supports multiple instances as of Version 2.0.Before creating an additional ITS instance, you may need to [create a Web server instance \[Page 105\]](#).
- If you are using IIS, ensure that each Web server instance runs in a separate memory space.
To check this from the Windows NT 4.0 desktop:
 - a. Choose *Start* → *Programs* → *Windows NT 4.0 Option Pack* → *Microsoft Internet Information Server* → *Internet Service Manager*.
 - b. Click the Web server instance name to expand the hierarchy and select the `scripts` subdirectory.
 - c. Click the right mouse button and choose *Properties*.
 - d. Select the *Virtual Directory* tab and make sure that *Run in separate memory space (isolated process)* is enabled.

Procedure

There are two ways you can create additional ITS instances:

- With the ITS setup program
SAP recommends this method.
- With the `itsvinstall.exe` utility
This method requires more knowledge to use, but is more flexible.

Creating ITS Instances with the ITS Setup Program

To create an additional ITS instance, you can simply run the ITS setup program again. During the rerun, the ITS setup program recognizes that an initial installation has already been performed.

Creating ITS Instances with the itsvinstall.exe Utility

For added flexibility and procedural control, you can create additional ITS instances with the `itsvinstall.exe` utility, which provides arguments for essential environment information (for example, the Web server name).

You can either:

- Pass all the necessary information in the command line (using the `/a` option).
- Create a configuration file.

The configuration file is called `itsvinstall_<vits_id>.cfg`. It is more convenient to use, since (if available) you can copy the file used for earlier installations. Also, if errors occur, it is easier to use the file again if you have to repeat an installation.

You must also specify whether you want to perform a single host installation or a dual host installation. In a dual host installation, the Web server and the ITS Manager run on separate machines.

If you want to know which command line options are supported by the `itsvinstall.exe` utility, enter the commands listed below in the command prompt.

When doing this, replace `<dirItsRoot>` with your ITS root directory, which is the one you selected during ITS setup. By default, the root directory is:

```
C:\Program Files\SAP\its\2.0
```

To get the correct value for the `webServerName` parameter, use the current name recorded in the Windows NT Registry.

```
> cd <dirItsRoot>\admin
> itsvinstall /?
ITS VInstall Utility:
/?          List of supported command line arguments.
/d <field>=<value>  Command line arguments. <field> may be:
                   webServerName (for example: IIS, W3SRC)
                   webServerPathDocs
                   webServerPathScripts
                   itsaccount
                   itspassword
                   host
                   portAGate
                   portMManager
                   maxAGates
                   ~routeString
                   ~appServer
                   ~systemNumber
                   ~messageServer
                   ~loginGroup
                   ~systemName
                   ~client
                   ~login
                   ~password
                   ~language
/h          Same as "/?".
/i <package>{, <package2>}
           Install these IAC packages with the virtual ITS.
/m <package>  Minimize memory consumption for this virtual ITS
/p <wpackage> Sets the WGate package file to <wpackage>. If a
           package name is given and no /r option is defined,
```

```

the package will be installed.
/q Do not ask for user input.
/r <range> The range or scope of the command; may be:
           a[gate] - install AGate part only
           w[gate] - install WGate part only
           p[ackage] - create a WGate-package only
           * - install both AGate and WGate

(default)
/t <tracelevel> Set the trace level.
/v <vits_id> The virtual ITS id to create

>

```

Creating a Single Host ITS Instance

Suppose you want to add an unmodified ITS instance called Q30 to your existing ITS installation. The existing installation includes the physical version of the ITS, and an initial ITS instance called P30. You want to attach Q30 to Web server w3svc.

To do this, use commands like those listed below in the command prompt.

Replace <dirItsRoot> with your ITS root directory, which is the one you selected during ITS setup. By default, the root directory is:

```
C:\Program Files\SAP\its\2.0
```

To get the correct value for the `webServerName` parameter, use the current name recorded in the Windows NT Registry.

Here, we assume that the directory `Program Files/SAP/its/2.0/install/packages` contains the package <release>_all.car.

```

> cd <dirItsRoot>\admin
> itsvinstall /v Q30 /d webservername=w3svc /i <release>_all
Are you sure [y/n]? y

Virtual installation...
Installing virtual ITS (AGate)...
Creating ITS directory share...
Virtual installation (AGate) ok.
Installing virtual ITS (WGate)...
Creating installation package for virtual ITS...
Collecting MIME files...
Creating package file...
Removing temporary files...
Creating installation package for virtual ITS ok.

The Web server "W3SVC" is already attached to the virtual ITS "P30"!
Proceeding will detach the web server from its current virtual ITS. Do
you want to proceed
[y/n]? y

Applying installation package for virtual ITS...
Extracting package...
There are already MIME files installed in "C:\InetPub\wwwroot\sap\its"!
Do you want to overwrite them [y/n]? y

Copying MIME files...
Removing temporary files...
Creating MIME directory share...
Applying installation package for virtual ITS ok.
Virtual installation (WGate) ok.

```

```
Virtual installation ok.
>
```

The `/i` command line option specifies a package of ITS files (service files, HTML templates, language resource files, and MIME files) to be included in the installation. If you omit this command, no ITS files are included.

The two command line options `/v` and `/d` are the only required settings. All other arguments are optional.

In the example above, the ITS gives you two warnings.

- The first warning tells you that, by asking to attach the new virtual ITS Q30 to the requested Web server, you are about to detach the existing P30 from the same Web server.
- The second warning tells you that your command overwrites already existing MIME files in the Web server's document directory.

If you want to run the ITS Manager service under a Windows NT account other than `system`, use the `/d itsaccount=...` and `/d itspassword=...` arguments (with the corresponding values).

Copying an Existing ITS Instance (Single Host)

Suppose you want to create an ITS instance Q30B by copying an existing instance Q30. If you do this, the new ITS instance Q30B has all the attributes of the source instance.

To do this, use commands like those listed below in the command prompt.

Replace `<dirItsRoot>` with your ITS root directory, which is the one you selected during ITS setup. By default, the root directory is:

```
C:\Program Files\SAP\its\2.0
```

To get the correct value for the `webServerName` parameter, use the current name recorded in the Windows NT Registry.

Here, we assume that the directory `Program Files/SAP/its/2.0/install/packages` contains the package `<release>_all.car`.

```
>
> cd <dirItsRoot>\admin
> itsvinstall /v Q30B /d webservername=https-pa1001452 /i <release>_all
Are you sure [y/n]? y
Virtual installation...
>
```

Creating a Dual Host ITS Instance

To create a dual host instance, perform the following steps:

1. Install the AGate part of the ITS instance.

In this example, P30 is the requested ITS instance:

```
>
> cd <dirItsRoot>\admin
> itsvinstall /v P30 /r agate /i 45a_all
Are you sure [y/n]? y
Virtual installation...
Installing virtual ITS (Agate)...
```

```
...
>
```

AGate is now installed for P30 on the ITS host.

2. Create a WGate package file on the ITS host for the current installation.

```
>
> cd <dirItsRoot>\admin
> itsvinstall /v P30 /r package /i 45a_all
Are you sure [y/n]? y
Virtual installation...
Creating installation package for virtual ITS...
...
>
```

After this command, you'll find a file `package_P30.car` in the subdirectory `<dirItsRoot>\install\packages`.

3. Copy the WGate package file to the Web host.

The Web host is the home of the WGate side of the virtual ITS.

If the `package_P30.car` file is not already in the folder `<dirItsRoot>\install\packages` on the Web host, you must move it there.

To do this, you can use any file-transfer program, for example, `ftp`:

```
>
> cd <dirItsRoot>\install\packages
> ftp myRemoteWebHost
login: ...
password: ...
: binary
Switched to binary mode.
: prompt
Prompt is now off.
: put package_P30.car
### bytes transfered.
: bye
> cd ..
>
```

4. Install the WGate package on the Web host.

The following commands install the Web host side of the virtual ITS:

```
>
> cd <dirItsRoot>\admin
> itsvinstall /v P30 /p package_P30.car /d webservername=w3svc /i
45a_all
Are you sure [y/n]? y
Virtual installation...
Installing virtual ITS (WGate)...
Creating installation package for virtual ITS...
Collecting MIME files...
Creating package file...
Removing temporary files...
```

```
Creating installation package for virtual ITS ok.  
Applying installation package for virtual ITS...  
Extracting package...  
Copying MIME files...Removing temporary files...  
Creating MIME directory share...  
Applying installation package for virtual ITS ok.  
Virtual installation (WGate) ok.  
Virtual installation ok.  
  
>
```

The installation is now complete.

Creating Web Server Instances

Since each ITS instance must link to its own Web server instance, you may need to create a virtual Web server when you create the ITS instance.

You must also create a separate Web server instance when you create an ITS instance to run ITS Administration. This is because ITS Administration always runs under its own ITS instance and Web server instance.



This procedure is a quick guide to creating a Web server instance. For full details, see your Web server documentation.

Procedure

The following procedures describe how to:

- Create a Microsoft Web server instance.
- Create a Netscape Web server instance.

Creating a Microsoft Web Server Instance

To create a Web server instance in Microsoft Internet Information Enterprise Server (IIS) 4.0:

1. Select *Start* → *Programs* → *Windows NT 4.0 Option Pack* → *Microsoft Internet information Server* → *Internet Service Manager*.
2. Click on the *Internet Information Server* folder.
3. Select the desired host name.
4. Click on the right mouse button and choose *New* → *Web Site*.
5. Enter a description in the *Web Site Description* field (for example `<host name>-adm`) and choose *Next*.
6. Enter an unused port (for example, 81 or 82) in the *TCP Port this Web Site should use (Default: 80)* field.
7. Enter a directory name in *Enter the path for your home directory* field.
You must have already created this directory. For example, `C:\InetPub\wwwroot-adm`.
8. Choose *Next*, and then *Finish*.
The Web Site dialog disappears.
9. Click on the *Internet Service Manager* window again, and select the Web site you just created.
10. Select the *Scripts* subdirectory, right-click the mouse, and choose *Properties*.
11. Choose the *Home Directory* tab.
12. In the *Application Settings* group box, enable *Run in separate memory space (isolated process)*.
13. Choose *Apply*.

With IIS, you can create second instances of the Web server only with release IIS 4.0 or higher.

Creating a Netscape Web Server Instance

To create a Web server instance in Netscape Enterprise Server (NES) 3.5:

1. On the Windows NT 4.0 desktop, choose *Start* → *Programs* → *Netscape SuiteSpot* → *Administration*.
2. Choose *Create New Enterprise Server* and configure the parameters:
 - *Server Port:* Set this value to an unused port (for example, 81 or 82).
 - *Server Identifier:* Set this to a value such as `<host name>-adm`.



When you create a new ITS instance, the installation procedure stops any other instances that are currently running. Therefore, when the procedure is finished, only the new instance is running. This also applies when you deinstall.

Starting and Stopping ITS Instances

Use this procedure to start and stop ITS instances manually.

Procedure

You can use the `itsvcontrol` utility to:

- Stop and start ITS instances
- Stop and start AGate only
- Display the status of ITS instances

Starting and Stopping ITS Instances

To start one ITS instance:

```
>
> cd <dirItsRoot>\admin
> itsvcontrol /v P30 /c start
Virtual ITS "P30":
The virtual ITS "P30" was successfully started.
The web server "W3SVC" was successfully started.
>
```

To stop one ITS instance:

```
>
> cd <dirItsRoot>\admin
> itsvcontrol /v P30 /c stop
Virtual ITS "P30":
The virtual ITS "P30" was successfully stopped.
The web server "W3SVC" was successfully stopped.
>
```

To start or stop all virtual ITS instances on your machine, use `/v *`:

```
>
> itsvcontrol /v * /c stop
>
```

Stopping and Starting AGate Only

To start/stop the AGate component of the ITS (and keep the WGate component and your Web server running):

```
>
> cd <dirItsRoot>\admin
> itsvcontrol /v P30 /c stop /r agate
Virtual ITS "P30":
The virtual ITS "P30" was successfully stopped.

> itsvcontrol /v P30 /c start /r agate
Virtual ITS "P30":
The virtual ITS "P30" was successfully started.
>
```

Displaying the Status of ITS Instances

To display the status of ITS instances:

```
>
> cd <dirItsRoot>\admin
> itsvcontrol /v * /c status
Virtual ITS "A30":
The virtual ITS "A30" is currently stopped.
There is no local web server attached to the virtual ITS "A30".
Virtual ITS "J30":
The virtual ITS "Q30" is currently stopped.
The web server "https-pal001452" is currently stopped.
Virtual ITS "K30":
The virtual ITS "K30" is currently stopped.
The web server "https-pal001452-K30" is currently stopped.
Virtual ITS "P30":
The virtual ITS "P30" is currently running.
The web server "W3SVC" is currently running.
Virtual ITS "R30":
The virtual ITS "R30" is currently stopped.
There is no local web server attached to the virtual ITS "R30".
Virtual ITS "S30":
The virtual ITS "S30" is currently stopped.
There is no local web server attached to the virtual ITS "S30".
>
```



Whenever possible, you should perform tasks like starting and stopping ITS instances with ITS Administration. To access this tool, you need to install an administration instance of the ITS.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.

In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

Setting the Security Level of ITS Instances

The ITS supports three levels of file security (prior to ITS 2.2, only two levels were supported).

When you create an ITS instance, you should protect it by assigning a security level. You can do this with the `itsvprotect` command, which assigns permissions to ITS files and directories, as described below.

Procedure

You can use the `itsvprotect` command to set the following security levels:

- Everyone
- ITS administrators and ITS users
- ITS administrator group only

Security Level: Everyone

This security level applies no security attributes to files for an ITS instance. All files get the access attribute "everyone: full control".

The following example shows how to use `itsvprotect` to set the security to this level:

```
>
> cd <dirItsRoot>\admin
> itsvprotect /v Q30 /s everyone
Are you sure [y/n]? y
Setting security attributes...
Setting security attributes for shared files...
Setting security attributes for virtual ITS "Q30" related files...
Setting security attributes for virtual ITS "Q30" related files
(AGate)...
Setting security attributes for virtual ITS "Q30" related files
(WGate)...
Setting security attributes ok.
>
```

This option modifies the security attributes of ITS directories and files as follows:

Directory and Files	Security Attributes
<dirItsRoot>/admin/*	everyone: full control
<dirItsRoot>/install/*	everyone: full control
<dirItsRoot>/programs/*	everyone: full control
<dirItsRoot>/<vits_id>/*	everyone: full control
<dirWebScriptRoot<vits_id>/wgate*	everyone: full control
<dirWebScriptRoot<vits_id>/virtualits.conf	everyone: full control
<dirWebDocRoot<vits_id>/sap/its/*	everyone: full control
<admin\$>/system32/sapbasis20.dll	everyone: full control



Since all ITS instances share the files in the `<dirItsRoot>/programs` and `<dirItsRoot>/admin` directories, this security level grants access to files which may have been protected for another ITS instance.

In general, it is safer to use the same security level for all virtual ITS instances on one machine. Only in this way can you avoid introducing unwanted security risks.

Security Level: ITS Administrators and ITS Users

Use this security level if you don't want to give access to everyone, but there are distinct groups that need access.

This security level allows file access to two groups:

- Administrators in the ITS administrator group have read/write access to all files.
- Users in the ITS user group have read/write access to a predefined subset of ITS files, and read-only access to other files.

All other users have read-only access to all files.

To use this security level, you must create two Windows NT accounts on your ITS server machine or Windows NT domain:

- The ITS administrator group account

This is a regular Windows NT administrator account.

- The ITS user group account

Create this group with the Windows NT administration tools and add to it every account that needs access to ITS files.

The following example shows how to set the security to the ITS administrator and ITS user level.

```
>
> cd <dirItsRoot>\admin
> itsvprotect /v Q30 /s itsusers /d itsusers=mydomain\allItsUsers
/d webadmin=mydomain\myWebAdministrator
Are you sure [y/n]? y
Setting security attributes...
Setting security attributes for shared files...
Setting security attributes for virtual ITS "Q30" related files...
Setting security attributes for virtual ITS "Q30" related files
(AGate)...
Setting security attributes for virtual ITS "Q30" related files
(WGate)...
Setting security attributes ok.
>
```

The ITS administrator and ITS user level applies the following file security attributes:

Directory and Files	Security Attributes
<code><dirItsRoot>/admin</code>	<code><itsadmin></code> : full control

<dirItsRoot>/install	<itsadmin>: full control
<dirItsRoot>/programs	<itsadmin>: full control
<dirItsRoot>/<vits_id>/logs	<itsadmin>: full control
<dirItsRoot>/<vits_id>/traces/agate*.trc <dirItsRoot>/<vits_id>/traces/mmanager*.trc <dirItsRoot>/<vits_id>/traces/sapirf*.trc <dirItsRoot>/<vits_id>/traces/sapjulep*.trc <dirItsRoot>/<vits_id>/traces/sapxgdk*.trc <dirItsRoot>/<vits_id>/traces/wgate*.trc	<itsadmin>: full control
<dirItsRoot>/<vits_id>/templates (except system subdirectory)	<itsadmin>: full control <itsusers>: change
<dirItsRoot>/<vits_id>/templates/system	<itsadmin>: full control <itsusers>: read
<dirItsRoot>/<vits_id>/services (except global.srv)	<itsadmin>: full control <itsusers>: change
<dirItsRoot>/<vits_id>/services/global.srv	<itsadmin>: full control <itsusers>: read
<dirWebScriptRoot<vits_id>>/wgate*	<itsadmin>: full control <webadmin>: read
<dirWebScriptRoot<vits_id>>/virtualits.conf	<itsadmin>: full control <webadmin>: read
<dirWebDocRoot<vits_id>>/sap/its (except mimes/system subdirectory)	<itsadmin>: full control <webadmin>: read <itsusers>: change
<dirWebDocRoot<vits_id>>/sap/its/mimes/system	<itsadmin>: full control <webadmin>: read <itsusers>: read
<admin\$>/system32/sapbasis20.dll	<itsadmin>: full control <webadmin>: read

Security Level: ITS Administrator Group Only

Use this security level to restrict file access to the ITS administrator group only.

This security level is important if the ITS is running in a production environment and you want to make sure that no one but an ITS administrator can modify ITS files.

The security attributes of exactly the same files and directories are modified as in the security level "ITS Administrator and ITS Users" (see above) except that all "<itsusers>" permissions have to be removed:

The following security attributes are applied at this security level:

Directory and Files	Security Attributes
<dirItsRoot>/admin	<itsadmin>: full control
<dirItsRoot>/install	<itsadmin>: full control

<dirItsRoot>/programs	<itsadmin>: full control
<dirItsRoot>/<vits_id>/logs	<itsadmin>: full control
<dirItsRoot>/<vits_id>/traces/agate*.trc <dirItsRoot>/<vits_id>/traces/mmanager*.trc <dirItsRoot>/<vits_id>/traces/sapirf*.trc <dirItsRoot>/<vits_id>/traces/sapjulep*.trc <dirItsRoot>/<vits_id>/traces/sapxgdk*.trc	<itsadmin>: full control
<dirItsRoot>/<vits_id>/traces/wgate*.trc	<itsadmin>: full control <webadmin>: change
<dirItsRoot>/<vits_id>/templates (except system subdirectory)	<itsadmin>: full control
<dirItsRoot>/<vits_id>/templates/system	<itsadmin>: full control
<dirItsRoot>/<vits_id>/services (except global.srv)	<itsadmin>: full control
<dirItsRoot>/<vits_id>/services/global.srv	<itsadmin>: full control
<dirWebScriptRoot<vits_id>>/wgate*	<itsadmin>: full control <webadmin>: read
<dirWebScriptRoot<vits_id>>/virtualits.conf	<itsadmin>: full control <webadmin>: read
<dirWebDocRoot<vits_id>>/sap/its (except mimes/system subdirectory)	<itsadmin>: full control <webadmin>: read
<dirWebDocRoot<vits_id>>/sap/its/mimes/system	<itsadmin>: full control <webadmin>: read
<admin\$>/system32/sapbasis20.dll	<itsadmin>: full control <webadmin>: read

The following is an example setting the security level to the administrator group only:

```
>
> cd <dirItsRoot>\admin
> itsvprotect /v Q30 /s itsadmin /d webadmin=mydomain\myWebAdministrator
Are you sure [y/n]? y
Setting security attributes...
Setting security attributes for shared files...
Setting security attributes for virtual ITS "Q30" related files...
Setting security attributes for virtual ITS "Q30" related files
(AGate)...
Setting security attributes for virtual ITS "Q30" related files
(WGate)...
Setting security attributes ok.
>
```



If you can have installed an administration instance of the ITS, you can also use ITS Administration to set the security level of ITS instances.

Whenever possible, you should perform tasks like setting the security level of ITS instances with ITS Administration. To access this tool, you need to install an administration instance of the ITS.

For further information about all aspects of ITS administration after installation, see the *ITS Administration Guide*:

In the R/3 System, choose *Help* → *SAP Library* → *BC - Basis Components* → *Frontend Services (BC-FES)* → *ITS / SAP@Web Studio (BC-FES-ITS)* → *ITS Administration Guide*.

In the SAP@Web Studio, choose *Help* → *ITS Documentation* → *ITS Administration Guide*.

Uninstalling ITS Instances

Use

Use this procedure to uninstall ITS instances manually.

Procedure

You can:

- Uninstall a single ITS instance
- Uninstall the entire ITS installation

Uninstalling the entire ITS installation means removing all files, registry entries, attachments to Web servers and Windows NT server entries.

Uninstalling a Single ITS Instance

To uninstall a single ITS instance, use the `itsvdeinstall` utility:

```
>
> cd <dirItsRoot>\admin
> itsvdeinstall /v Q30
Are you sure [y/n]? y
Virtual deinstallation...
Virtual ITS "P30"...
Virtual deinstallation ok.
>
```

You can uninstall all virtual ITS instances by using `/v *`, but you are not asked to confirm each virtual ITS instance.

Uninstalling the Entire ITS Installation

To uninstall the entire ITS installation (that is, the physical installation and all ITS instances), use the `itsdeinstall` utility.

This program removes all ITS information from your system **except** the uninstall-related routines, so make sure that you really want to uninstall everything.

To uninstall the ITS, use the following commands:

```
>
> cd <dirItsRoot>\admin
> itsdeinstall
Are you sure [y/n]? y
Deinstalling ...
Virtual deinstallation...
Virtual ITS "A30"...
There is no local web server attached to the virtual ITS "A30".
Virtual ITS "Q30"...
Virtual ITS "K30"...
Virtual ITS "P30"...
Virtual ITS "R30"...
```

```
There is no local web server attached to the virtual ITS "R30".
Virtual ITS "S30"...
There is no local web server attached to the virtual ITS "S30".
Virtual deinstallation ok.
Deinstallation ok.

>
```



You can also uninstall the ITS by using the Windows NT *Add/Remove Programs* utility. To do this:

1. On the Windows NT 4.0 desktop, choose *Start* → *Settings* → *Control Panel*
2. Double-click on *Add/Remove Programs*.
3. Select the entry *Internet Transaction Server <ITS>*, where *ITS* specifies the relevant ITS version.
4. Choose *Add/Remove*.

When the uninstall is complete, you can delete the uninstall-related routines manually:

```
<dirItsRoot>\admin\itsdeinstall.exe
<dirItsRoot>\admin\itsadmin.dll
<dirItsRoot>\admin\itsadmin.trc
<admin$>\system32\sapbasis20.dll
```

Migrating Earlier ITS Versions

Use this procedure to migrate an earlier version of the Internet Transaction Server (ITS) - installed on the machine where the current version is running - to the current version.

Procedure

There are two ways you can migrate earlier ITS versions:

- With the ITS setup program
- With the `itsmigrate11` utility

Migrating With the ITS Setup Program

To do this, run the ITS setup program again. This handles the migration process automatically.

To migrate a pre-2.2 version of the ITS, SAP recommends that you use the ITS setup program, but you can also use the `itsmigrate11` utility (described below).

Migrating With the `itsmigrate11` Utility

For added flexibility, you can use the `itsmigrate11` utility to upgrade earlier ITS versions.

The migration process affects service files and HTML templates, as well as files stored on the Web server (for example, MIME files).

The migration process also cleans up old Web server configuration files. To do this, it:

- Deletes or updates any ITS-related data
- Changes port entries (`sapavw00`, `sapavw99`, and `sapavwmm`) in the services file to `sapavw.._<vits_id>`.

The ITS setup program performs these actions automatically.

After a successful migration, you can use the `/x` option to delete all ITS files and registry entries for the previous version. Be careful when using this option, because your old files and settings cannot be recovered afterwards.

Set the `/a` options to the Web server name currently registered as a Windows NT service.

```
> cd <dirItsRoot>\admin
> itsmigrate11 /v x30 /d webservername=w3svc /d webservername11=https-
pal001452-IPM
Are you sure [y/n]? y
Migrating ITS 1.1...
Stopping ITS 1.1...
Copying ITS 1.1 service and template directories...
Unregistering ITS 1.1...
Stopping ITS 1.1 web server "Netscape Enterprise Server 3.0 (pal001452-
IPM)"...
Copying ITS 1.1 MIME directories...
Migrating ITS 1.1 port settings...
Migration of ITS 1.1 ok.
>
```

If the earlier ITS version was a dual host installation, use the `/x` option to specify whether you want to migrate just the AGate, just the WGate, or both.

To do this, use one or both of the following:

- `/r a`
- `/r w.`

If you omit `/r`, the migration utility terminates with an error.

You cannot migrate an earlier ITS version to an ITS that has already been installed. You must:

1. Use `itsmigrate11.exe` to migrate the earlier ITS to a new ITS instance.
2. Use `itsvinstall.exe` to install the migrated ITS instance.

Migrating from R/3 Release 3.x to R/3 Release 4.x

Use this procedure to migrate ITS files from R/3 Release 3.x to R/3 Release 4.x with the `itsvllcnv.exe` utility.

The `itsvllcnv.exe` utility renames all files and directories for a given ITS instance according to the two-character language identifiers used in Release 4.x R/3 systems. This renaming covers:

- The language-specific subdirectory names in the HTML template file directories and MIME file directories
- The language-specific template (`.html`) and language resource (`.htrc`) file names

For example, the names of language resource files are changed from `<file name>_e.htrc` to `<file name>_en.htrc`. Available command line arguments are:

```
cd <itsRootDir>\admin
itsvllcnv /?
ITS Language Length Conversion Utility:
/?          List of supported command-line arguments.
/h          Same as "/?".
/t <tracelevel> Sets the trace level (1-3).
/i <install type> Possible values are:
              dual          - agate and wgate installation
              agate         - an agate installation
              wgate         - a wgate installation
/v <vits_id> The virtual ITS id to apply changes on.
```

Procedure

To use the `itsvllcnv.exe` utility to migrate ITS files:

1. Back up all the relevant directories.
 - Services are stored in the directory
`C:\Program Files\2.0\<virtual ITS>\services`
 - HTML templates and language resources are stored in the directory
`C:\Program Files\2.0\<virtual ITS>\templates`
 - MIME files are stored in the Web server root directory
`sap\its\mimes`
2. Stop the ITS.
3. Run the `itsvllcnv` utility.

Use the `/i` argument to specify the type of installation (dual, AGate or WGate).

For example:

```
cd <itsRootDir>\admin
itsvllcnv /i dual /v P30 /t 3
Retrieving list of Netscape Servers...
Retrieving list of Microsoft Internet Information Servers...
List of Netscape Enterprise Servers successfully retrieved.
Retrieving list of Microsoft Internet Information Servers...
List of Microsoft Internet Information Servers successfully retrieved.
```

```
Renamed file:  
"C:\Program Files\ITS\2.0\P30\templates\aww1\99\aww1_e.htrc" to  
"C:\Program Files\ITS\2.0\P30\templates\aww1\99\aww1_en.htrc"  
Renamed file: "C:\InetPub\wwwroot\Sap\its\mimes\aww1\99\e" to  
"C:\InetPub\wwwroot\Sap\its\mimes\aww1\99\en"  
.  
.  
Finished applying conversion.
```

4. Check the contents of all ITS service files for references to language codes.

You must change values for the `~language` and `~languages` parameters to two-character language identifiers. If your service files contain single-character language identifiers, you must change these manually.

For example, `~languages e,d,j` should change to `~languages en,de,ja`.

Appendix A: Installation CD Contents

The Internet Transaction Server (ITS) installation CD contains:

- ITS and SAP@Web Studio setup files
- IAC package files as part of ITS setup program

ITS and SAP@Web Studio Setup Files

The following two executables contain all the files you need to install or upgrade the ITS and the SAP@ Web Studio on Windows NT systems:

File	Installs	Size (MB)	CD Location
<code>setupits.exe</code>	ITS Includes the standard IAC packages for the current release.	15	<code>\its\nt\i386\setupits.exe</code>
<code>setupstu.exe</code>	SAP@Web Studio	8	<code>\its\nt\i386\setupstu.exe</code>

IAC Package Files

IAC packages contain all the files you need to run Internet Application Components (IACs) for the current R/3 release.

The ITS setup program offers the following standard IAC packages for installation:

IAC Package File	Description	Size (MB)
<code><release>_all.car</code>	Standard IAC package for current release.	10
<code>its_admin.car</code>	ITS Administration package.	0.1
<code>webgui.car</code>	SAP GUI for HTML package.	0.8

If you want to install standard IAC packages from earlier releases, you can download these from

<http://www.saplabs.com/its>